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A NEW PROCEDURE (PUNCH OPERATION) FOR SMALL PROSTATIC BARS AND CONTRACTURE OF THE PROSTATIC ORIFICE *

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In 1836, Mercier first vigorously called attention to the occasional occurrence of obstructions at the prostatic orifice in cases other than prostatic hypertrophy, and gave them the name of *valvules du col de la vessie*. He described quite accurately the elevation of the median portion of the prostate in the form of a bar, which he said in some cases was due to muscular hypertrophy, and in others to a glandular enlargement in this region.

Mercier devised an instrument somewhat like a lithotrite by means of which he operated in a number of cases with fair success, but his operation was never adopted and soon fell into disuse.

Later French writers, particularly those of the Guyon school, departing from Mercier's teachings, have attributed the condition to lack of bladder tonicity, and the term *prostatisme sans prostate* has been quite generally used to describe this condition, which they believed to be due to an atrophy or paralysis of the vesical musculature, rather than to the obstruction at the prostate.

In America, Keyes, Fuller and Chetwood have recognized the obstructive character of these cases which they have described as contracture at the neck of the bladder or stricture of the posterior urethra. For this condition Fuller devised a deep division of the median portion of the prostate and vesical sphincter, either through a suprapubic or a perineal incision, and Chetwood and Keyes have recommended highly the use of a modified Bottini operation done through the perineum to divide the obstruction at the orifice by means of an electrocautery blade.

By the surgical world, as a whole, however, this condition has been sadly neglected.

In my own work, this condition has been attacked in various ways: at first, through the urethra by means of a Bottini operation; subsequently by means of a perineal prostatectomy, after removal of the lateral lobes of the prostate, and later, through the suprapubic route. The results obtained by means of the Bottini operation were not entirely satisfactory. There were a few cases in which incontinence of urine persisted for quite a protracted period and the mortality was not negligible. The perineal route was also unsatisfactory because the lateral lobes were sacrificed, frequently when not at all enlarged, and, the patients often being young men, one naturally disliked to do more than was necessary.

January 27, 1909, I saw a patient in whom rectal examination showed a prostate no larger than normal, yet a catheter withdrew 500 c.c. residual urine, and the cystoscope showed a small but definite transverse median bar. There was no intravesical enlargement of the lateral lobes. The patient objected to a prostatectomy and I finally consented to remove the median portion of the prostate through a suprapubic incision. The prostatic orifice was found to be surrounded by an inelastic ring, difficult to dilate, and in the median portion there was a small bar only slightly elevated above the trigon. With forceps and scissors this was excised. The vesical orifice dilated widely, and apparently all obstruction had been removed. The patient convalesced slowly; he remained in the hospital eight weeks before the suprapubic fistula healed, and a month later showed evidences of recurrence of the obstruction. In the course of three months the suprapubic wound had reopened, obstruction of the prostatic orifice being almost complete, and in a short time the patient died of uremia.

A study of this case brought forcibly to my attention the fact that it should be possible to treat such cases by means of excision of the median portion of the prostate through the urethra, and I therefore set about to construct an instrument by means of which this could be done. Figure 1 shows the final outcome of my experimentation. It consists of an outer tube about 18 cm. long with a coudé curve at its inner end, and a urethroscopic disk at the other, containing a post on which an external urethroscopic light can be attached. Near the inner end on the under surface a large deep fenestra is provided (Fig. 1). Within the instrument is a second tube which has a sharp-cutting inner end made of steel, which when pushed home can excise anything appearing inside of the outer tube. The object of this instrument is, when pushed through the urethra into the bladder, to engage the median bar in the fenestra and then to excise it by means of the inner cutting tube while observing the operation through the inner tube illumined with the external urethroscopic lamp.

The first operation was performed with this instrument on Feb. 1, 1909, in my office, under local cocain anesthesia. A piece of tissue about 7 mm. in diameter and 1.3 cm. long was excised almost without pain, with little subsequent hemorrhage, and splendid functional result in a case of small median-bar obstruction of long duration. Since then I have operated on numerous cases, and am now able to report 100 cases of obstruction to urination of the median-bar type, and others with peculiar small enlargements of the lateral or

* Because of lack of space this article is abbreviated in THE JOURNAL. The complete article appears in the Transactions of the Section and in the author's reprints. A copy of the latter will be sent by the author on receipt of a stamped addressed envelope.

* Read in the Symposium on Obstacles to Evacuation of the Bladder in the Section on Genito-Urinary Diseases of the American Medical Association, at the Sixty-Third Annual Session, held at Atlantic City, June, 1912.

anterior portions of the prostate, which have been operated on with this instrument.

Before detailing these cases it may be well to speak more definitely in regard to the technic of the operation as now performed.

The instrument is usually inserted with the cutting obturator pushed home until the end of the instrument is felt to enter the vesical orifice. The inner tube is then withdrawn about 2 cm., the electric light attached externally and an inspection made. As a rule, the verumontanum will be seen bulging into the fenestra. The instrument is then pushed slowly inward, the verumontanum is seen to disappear, and the median portion of the prostate gradually enters and finally fills the fenestra completely. If the instrument is pushed a little farther inward, urine escapes, showing that the instrument is in the bladder. When it is drawn outward the flow of urine ceases, showing that the inner edge of the fenestra is caught against the median bar, a good view of which is easily obtained after aspirating the fluid from the interior and drying with swabs. The inner cutting tube is then rapidly pushed home, and excises in one piece the tissues caught in the fenestra (Fig. 2). With alligator or rongeur forceps, inserted into the instrument, this piece of tissue is removed and is usually 1.2 to 1.5 cm. long, one-third of its circumference being covered with mucous membrane, partly vesical and partly urethral. Experience has shown that one cut is usually not sufficient, and that it is wise next to turn the instrument first to the right and then to the left in order to remove more of the median bar on each side. The lateral cuts never excise as much as the posterior median, generally about one-third as much. The cutting inner tube is then removed; the bladder is washed out through the outer tube, and when apparently clear of clots the obturator is introduced and the instrument withdrawn. Immediately afterward a two-way urethral rubber or gum catheter (Fig. 3) is inserted into the bladder (by means of a stilet if a gum catheter is used), and continuous irrigation at once begun. If clots are present they are evacuated by means of a large hand-syringe, but generally this is not necessary. After the double catheter has been fastened in place by means of adhesive strips around the penis, the patient is returned to the ward, where continuous irrigation is at once resumed. A large porcelain tank, containing about 10 liters of sterile water at a temperature of 115 F., which is allowed to flow through a small tube into the bladder and out through the large tube with sufficient rapidity to remove the blood and prevent clotting, is employed. This irrigation is kept up for twenty-four or forty-eight hours. Sometimes the tubes become plugged, and the large hand-syringe has to be used to evacuate the clots. As a rule, the two-way catheter can be removed in from twenty-four to forty-eight hours. Only rarely is further catheterization necessary. Many of the patients have left the hospital in two or three days, several have not even gone to the hospital. As a rule, the patient is able to void urine with much greater freedom at once, and the convalescence is generally rapid and satisfactory, no treatment other than hexamethylenamin (urotropin) and water in abundance being required. The use of sounds and dilators has been found unnecessary.

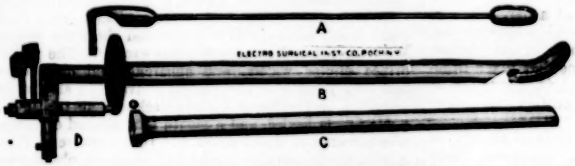

Fig. 1.—The urethroscope median bar excisor, showing the outer tube with fenestra B and external light-carrier D, obturator A and inner cutting-tube C.

STUDY OF CASES

This punch operation has now been performed in over 100 cases which may be divided as follows:

Simple bars or contracture of the prostatic orifice, fifty-one cases; median bar with diverticula, four cases; bar with vesical calculus, eleven cases; bar or small lobe obstruction after prostatectomy, twenty cases; bar or small lobe with trigonal obstruction, three cases; small bar associated with spinal disease, four cases, and obstruction associated with cancer of the bladder and prostate, etc., nine cases.

CLASS A.—SIMPLE BARS OR CONTRACTURE OF THE VESICAL ORIFICE

There are fifty-one cases in this group. The diagnosis was invariably made by the cystoscope which showed a definite elevation of the median portion of the prostate in the shape of a small bar, either flat or rounded, above the anterior portion of the trigon. With the finger in the rectum and the cystoscope in the urethra this portion of the prostate was felt to be increased in thickness and in most cases considerably harder than normal. Not infrequently the prostate formed a hard ring around the cystoscope, the lateral lobes of the prostate being of a chronic inflammatory character. A contracture of the orifice was not usually to be made out, and, in fact, in almost all cases no difficulty was experienced in passing an ordinary No. 21 cystoscope with the usual coudé curve. In almost all instances the bladder showed the effect of obstruction and increased muscular effort in emptying the bladder, viz., more or less pronounced trabeculation, occasionally cellules or even diverticula, and not infrequently a pouch behind a hypertrophied trigon. Complications, such as cystitis, vesical calculus, infection of the kidneys, etc., were occasionally present, but are not included in this group of cases. The ages of the patients in Class A were as follows:

Age	Cases	Age	Cases
Under 30	2	From 50-59	16
From 30-39	4	" 60-69	14
" 40-49	11	" 70-79	5

A further analysis shows that fifteen patients, or 30 per cent., were under 50; the youngest patient in this class was 25. Examination of the records shows that in twenty-two cases the prostate was said to be slightly enlarged, but all but one of these patients were over 50; the single exception was a man aged 40, in whom the prostate was a little larger than normal, but not definitely hypertrophied; nor were any of the other twenty-one cases considered to be definite hypertrophies. The residual urine was as follows:

C.c.	Cases	C.c.	Cases
None	8	From 100-149	7
Under 30	14	" 100-175	1
From 30-49	11	" 100-460	1
" 50-79	3	Amount not stated	2
" 80-99	4		

In the majority of cases gonorrhea did not play an important rôle, and even in the cases in which it had been present there was often no evidence that it had been responsible for the later symptoms of obstruction, although the irritability which was present in many cases had not infrequently followed soon after gonorrheal infection. It cannot be denied, however, that not a few cases occurred in which a gonorrheal prostatitis had led to a gradual obstruction to the outflow of urine.

Among the seventeen patients who were under 50, the residual urine was as follows:

None	3 cases
Under 30 c.c.	6 cases
Between 30 and 49 c.c.	2 cases
Between 50 and 79 c.c.	1 case
Between 80 and 99 c.c.	2 cases
Between 100 and 149 c.c.	3 cases

Some of the most striking instances of large amounts of residual urine in young men are, however, not included in this class, because they were associated with

Fig. 2.—Urethroscopic median bar excisor in place, having enucleated the median bar.

complicating conditions, such as vesical diverticula, calculus, or had been operated on by prostatectomy. Several of these patients had from 400 to 500 c.c. of residual urine and led catheter lives, although quite young men. The bladder capacity was as follows:

Under 50 c.c.	1 case
Between 200 and 249 c.c.	5 cases
Between 250 and 299 c.c.	8 cases
Between 300 and 399 c.c.	12 cases
Between 400 and 499 c.c.	7 cases
Over 500 c.c.	14 cases
Not stated	4 cases

An analysis of the above shows that in fourteen cases, or 28 per cent., the bladder capacity was under 300 c.c., and that therefore the bladder was markedly contracted; in only fourteen cases, or 28 per cent., was the bladder as large as normal (500 c.c. capacity).

In those patients in whom there was little or no residual urine, there was generally contracture of the bladder, so that often the frequency of urination in these cases was greater than in some of those with much more residual urine.

The disease may therefore be said to differ from prostatic hypertrophy in that the obstruction to urination is less complete and usually associated with hypertrophy and subsequent contracture of the bladder, and in that for a time there is only a small amount of residual urine; in some instances, however, the amount of residual urine becomes very large or even complete retention may supervene. Pain, local and referred, burning and irritability, often very distressing, are among the most prominent symptoms in about 60 per cent. of the cases.

Pathology.—The specimens obtained by means of the urethroscopic median bar excisor or punch give a splendid opportunity to study the lesion in the median portion of the prostate in these cases, and this, I believe, is the first time that an extensive and comprehensive material of this sort has ever been assembled for study.

In this article, which is necessarily much abbreviated, it is impossible to go into the varied and complex pathology very thoroughly; suffice it to say, that several very distinct types of lesions were discovered.

One of the most common was that of a dense layer of new-formed connective tissue immediately beneath the mucous membrane, evidently forming a firm fibrous ring associated with elevation of the median portion of the prostate. Ten cases of this character were discovered, most of them in men past middle age, the youngest being 44. In these cases the sections showed no prostatitis and no connective-tissue infiltration in the muscle or gland tissue, the lesion consisting essentially of a submucous fibrosis.

The second type of lesions, which occurred with about the same frequency as the fibroid type just described, was one in which, in addition to a submucous connective-tissue layer, there was found a chronic inflammatory condition of the gland tissue, often with marked periacinous fibrous infiltration occasionally extending into the muscle.

The third type of lesion was one in which there was a definite hypertrophy of the submucous gland tissue, involving either the suburethral or subtrigonal groups of glands, or both. One patient, aged 38, showed a very marked hypertrophy of these glands, the lesion being absolutely typical of prostatic hypertrophy, large dilated acini with extensive intra-acinous outgrowths, budding, etc., being seen. Several other cases were found in men under 50. In most cases there was seen an inflammatory infiltration in and around the acini, sometimes well organized, so as to form a well-marked fibrosis. In one case, which was entirely unlike any of the others, there was no inflammatory infiltration, no fibrosis, no prostatitis and no hypertrophy, but the lobule removed showed simply a superabundance or overgrowth of the subcervical group of glands which had been sufficient to cause obstruction and irritation.

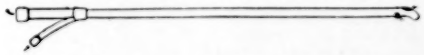

Fig. 3.—Two-way condé gum catheter for continuous irrigation; size 29 French.

A summary of my results shows that inflammatory infiltration, leading to fibrous tissue formation, either in the submucosa or in the glandular layer beneath it, and occasionally in the musculosa, forms a most characteristic lesion; that Mercier was right in saying that the obstruction in many of these cases was glandular in character, but wrong in his assertion that in many of the cases the lesion was due to a muscular hypertrophy, which I have found to be extremely rare.

Results.—The immediate results in all cases were satisfactory. There were no fatalities, no serious complications, and in all cases the patient left the hospital improved. In a few instances trouble was experienced on account of plugging of the catheter with a blood-clot, and it was necessary to use vigorous suction by means of a strong syringe or in some cases to remove the clots with an evacuating catheter. In no case, however, was the hemorrhage alarming or impossible to handle through the urethral catheter.

The ultimate results have been excellent. I have sent out sets of questions every six months, and have received replies within the past six months from all but six patients. In reply to the question as to whether they are entirely cured of all obstruction to urination, twenty-three have replied that they are entirely cured and eleven

that they are almost cured. In several of the latter cases there is only a slight irritation, pain or discomfort which prevents the patient from saying that he is entirely cured. Seven patients report that they are much improved, that is, between 50 and 75 per cent. of the obstruction has been removed. One patient says that he is slightly improved, about 25 per cent. of the obstruction having been removed, and three patients that they are unimproved. In these three cases severe pain was the principal symptom; there was no residual urine present and no apparent obstruction to urination, although a definite bar was seen with the cystoscope. The operation had been done with the hope of curing the pain, and while it has been quite successful in several other similar cases, it has not been successful in these three. All three of these patients have been vigorously treated by myself and others with various means, local and systemic, without relief; they belong to that interesting but distressing class of patients who complain of severe irritation, burning or pain in the deep urethra, for which it is often impossible to do anything really curative.

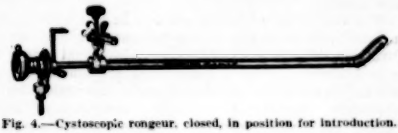

Fig. 4.—Cystoscopic rongeur, closed, in position for introduction.

Fig. 5.—Rongeur, open, showing cystoscope pushed out for inspection.

Four patients operated on during the past six months are known to have done well and are not included in the list. Two patients alone have not been heard from.

Among the thirty patients who complained of local pain (in many of whom this formed the most distressing symptom), the answers received indicate that seven have been entirely cured of the pain and irritation, twelve have been almost cured, four are improved, three are unimproved and four have not been heard from.

The results, therefore, may be said to have been extremely satisfactory, both in cure of obstruction and in the relief of pain. Some of the results have indeed been brilliant, effecting cure in cases of very long standing.

CLASS B.—PROSTATIC BAR OR CONTRACTURE WITH DIVERTICULA

There are five cases in this group which are given at length in the Transactions of the Section. The results obtained were excellent.

In reviewing these and other cases of vesical diverticula which I have seen, I am struck with the fact that only occasionally is it necessary or advisable to operate for the diverticula themselves. The simple removal of the obstruction, either by prostatectomy or by the punch operation, is usually sufficient to relieve the patients completely. In some cases in which the diverticulum is pressing on a ureter or has drawn it into its cavity, it is advisable to excise the diverticulum and to bring the ureter into the bladder by plastic procedure, if necessary.

CLASS C.—PROSTATIC BAR OR CONTRACTURE WITH VESICAL CALCULUS

There are eleven cases in this group. One of these patients, aged 22, had had difficulty of urination for many years. Examination revealed a calculus which was easily crushed and the bar was excised with the punch. The patient has been entirely well for almost three years. Two patients, aged 43 and 44, had calculus associated with the bar and were similarly treated with excellent results.

The other eight patients were men over 50, the oldest being 81, in whom an oxalate stone 1½ inches in diameter was crushed and the punch operation subsequently performed. The patient writes that he is now entirely well.

The results in all these cases have been peculiarly gratifying, the symptoms of frequency and difficulty of urination having been often very pronounced and associated with residual urine and vesical contracture. There has been no recurrence of calculus in any case which, I believe, is due to the fact that all obstruction has been removed by the punch operation. One of the most valuable fields for the punch is, I believe, after litholapaxy, for in these cases one often finds an inflammatory bar or contracture of the vesical orifice which has been either the cause or the effect of the calculus.

CLASS D.—PROSTATECTOMY CASES WITH INCOMPLETE RESULTS

There are twenty cases in this group. This has been a very interesting group, representing various operations by various operators. In many cases the obstruction was in the form of a transverse median bar; in other cases a rounded lobule, sometimes in the posterior portion, often in the lateral or anterior portions of the prostatic margin. All of the patients complained of obstruction to urination associated with either pronounced difficulty or frequency of urination, sometimes requiring the use of a catheter. In most cases the punch was used alone, several bites being taken to remove the obstruction completely. In a few cases the cystoscopic rongeur was also used to remove pedunculated or rounded lobules (Figs. 4, 5 and 6), the punch being used subsequently to remove the base of such lobules. These intra-urethral procedures have in nearly all cases been entirely successful in removing the obstruction to urination and in obtaining excellent functional results. These cases are described fully in the transactions.

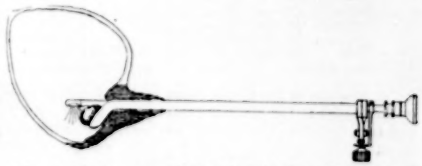

Fig. 6.—Showing removal of pedunculated median lobe with cystoscopic rongeur.

CLASS E.—MEDIAN BAR WITH TRIGONAL ELEVATION AND OBSTRUCTION

There are three cases in this group which are given in full in the transactions.

From these results it may be deduced that not infrequently does the trigon play an important rôle in urinary obstruction which has hitherto been lost sight of.

CLASS F.—SPINAL CASES

Three cases of definite tabes dorsalis have been subjected to the punch operation on account of large amounts of residual urine associated with obstruction in the median portion of the prostate which was removed by means of the punch. There was absolutely no result in two cases; the patients continue to lead a catheter life. In the third case the result has been exceptionally good, and now two years after the operation the patient reports that he voids urine only once at night and four times during the day with perfect freedom, and that he has been cured of incontinence in the daytime.

A very interesting case is that of a man aged 65, suffering with extensive carcinoma of the prostate and seminal vesicles. The cystoscope showed a transverse median bar with 100 c.c. of residual urine and also a rounded anterior prostatic bar. The patient was following a catheter life. A punch operation was performed, excising both the anterior and posterior bars. A report thirteen months later says that the patient is entirely cured of obstruction; that he voids urine, 8 ounces at a time, four times during the day and twice at night. There has been no hematuria, and the result obtained in this case would seem to indicate that the punch operation might occasionally be used very effectively in cases of carcinoma of the prostate not associated with pronounced lateral enlargement in which the obstruction seemed to be entirely at the prostatic orifice.

Mention has already been made of the use of the cystoscopic rongeur in association with the punch, which has been done in nine cases. In these the rongeur has been very effectively employed to remove pedunculated lobules, the punch being used to remove their bases or bars in other portions. For the removal of very small sessile or rounded lobules, especially those located at or within the urethral orifice, the punch is often more effective than the rongeur, which is more applicable for intravesical objects, and is particularly valuable in the removal of foreign bodies, calculi, stitches, portions of vesical tumor for microscopic study, or even the radical cure of pedunculated intravesically projecting prostatic lobes of small size (up to 2 cm. in diameter) which can be drawn out through the urethra with ease.

CONCLUSIONS

Including some recent cases which have not been tabulated, the punch operation has now been used in over 100 cases without a death. A great majority of these operations have been performed under local urethral anesthesia, 4 per cent. novocain being employed; the operation usually causes very little more pain than the previous cystoscopy and generally consumes much less time. After evacuation of the blood through the punch instrument, a large two-way urethral catheter usually takes care of the hemorrhage very effectively if immediately connected with a continuous irrigation. Often, however, it is necessary to use a large syringe to dislodge or aspirate an obstructing clot, so that for the first twenty-four hours the convalescence is occasionally interrupted by painful periods due to plugging of the catheter. On this account the operation is only to be advised when all the proper apparatus and very careful attention from nurses and hospital assistants is at hand. The fact that one physician who had essayed to use this operation in two cases without the proper two-way catheters and evacuating apparatus, found it necessary to perform suprapubic cystotomy for drainage may serve as a note of warning, although my experience of 100 cases in which the urethral catheter was entirely satisfactory shows that such complications may be considered entirely avoidable.

In conclusion, I may say that the results obtained, even in cases of complete retention of urine and catheter life, are entirely satisfactory for the cases in which I have employed it, viz., small bars; contractures or lobules at the prostatic orifice and not associated with lateral hypertrophy; that for such cases the operation, when properly done, is thoroughly radical, does not have to be repeated, does not require subsequent urethral dilatation and gives lasting cures.

As time goes on we may occasionally find cases in which the procedure will have to be repeated, but it is so simple that this should not be considered a great drawback. In those cases associated with marked irritability or pain, complete relief is often afforded, but sometimes the painful symptoms persist despite complete relief of the obstruction. For simple prostatic bars, contracture of the vesical orifice and those cases associated with vesical calculus or diverticula, especially in young or middle-aged men, the operation furnishes, in my opinion, the safest, surest and most radical curative procedure which has yet been offered.

330 North Charles Street.

CONTRACTURE OF THE NECK OF THE BLADDER *

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The subject of atony of the bladder, its causation and symptoms, has demanded more than an ordinary amount of discussion in recent years, and this fact alone would suggest the existence of some doubtful and unsettled question that has aroused special interest.

The kindred subject of contracture of the neck of the bladder is brought equally to mind because, on the one hand, many cases of atony are dependent on mechanical obstruction of the bladder outlet (under which category "contracture" properly belongs), while, on the other hand, in some cases of bladder retention which have been attributed to a mechanical cause, such cause has been disputed and the explanation thereof ascribed to more vague and indefinite conditions, difficult to explain but certainly not mechanical.

It is not within the scope of this communication to take issue here with those who have investigated and described at length the various etiologic factors in question, lest it might weaken the only stand I care to assume at present on this subject, which is that whatever other cause may exist for the condition of vesical retention outside of prostatic enlargement and lesions of the central nervous system, there certainly does exist one in the nature of circular, sphincteric and prostatic stenosis, causing incomplete and complete retention of urine. This appears in the young as well as in the old, may occur independent of prostatic enlargement or be combined with it, is sometimes a fibroid stenosis, being mostly inflammatory, may be confined entirely to the internal sphincter or encroach on the prostatic orifice and include a large portion of this section of the urethra, and is amenable to surgical relief by complete incision, preferably galvanocaustic or by complete extirpation.

* Read in the Symposium on Obstacles to Evacuation of the Bladder in the Section on Genito-Urinary Diseases of the American Medical Association, at the Sixty-Third Annual Session, held at Atlantic City, June, 1912.

I called attention to this subject in 1901 before the American Association of Genito-Urinary Surgeons, having received the knowledge of this condition as a part of my early education under the senior Keyes, and on other occasions since that time I have attempted to stimulate more general interest on the subject by reporting cases before and after operation. There has seemed to be a doubt in the minds of some as to the existence of such a condition because of the discovery of cases of apparent bladder atony without any recognizable, mechanical obstruction from cystoscopic or other observation. There are in the literature reports of numerous cases of vesical atony, assigned to such causes as arteriosclerosis, disturbance in the circulation of the vesicoprostatic plexus, atrophy of the bladder due to senile changes, degeneration of the bladder muscle or disease of its nerves or ganglion centers and finally to an infectious origin. But what cause is behind these various agencies as a primary factor is not stated, and yet it may be that prolonged inflammation or chronic congestion would suggest a predisposing influence and may have acted as a forerunner to many of the aforementioned conditions. It has happened during the past winter that a patient of mine, the first that has afforded the opportunity to obtain this data, succumbed and as a result of the post-mortem examination, I was enabled to obtain a pathologic specimen of the morbid lesion in the bladder.

REPORT OF CASE

Patient.—A man, 30 years old, presented none of the symptoms of arteriosclerosis or other changes of senility or presenility to any degree. His local condition embraced the sole extent of the malady for which he sought treatment, which, to be summed up in brief, was: complete retention of the urine as evidenced by his inability to void urine normally, which had developed in an increasing degree for several years; a secondary vesical atony, as evidenced by the lack of tone of the urinary stream when projected from the catheter; some chronic inflammation of the bladder, as shown by examination of the urine; a total absence of prostatic enlargement as found by rectal palpation and no intravesical prostatic growth, as determined by cystoscopic investigation. The patient had been afforded a suprapubic drainage only and died without any attempt being made to relieve the vesical obstruction. This constriction, as found at the time of opening the bladder suprapubically, was complete and impassable to the examining finger.

Necropsy.—The entire sphincteric orifice and prostatic urethra were removed for examination. It was found at the time of removal that the vesical side of the urethral outlet was contracted to the size of a No. 18 French and was exceedingly rigid, instead of having normal elasticity and permitting with dilatation the introduction of the tip of the finger; it was possible, however, to force entrance of an instrument to the size of an ordinary cystoscope. It was not difficult to understand complete occlusion of this orifice by the added swelling of the mucosa and adjacent tissues, attendant on congestion and inflammation. The report of the histologic examination was as follows:

Microscopic Examination.—A very pronounced inflammatory process is evident, present for the most part around the periurethral and intrasphincteric glands. This inflammatory process is of two types: (1) an acute mild, suppurative process with exudation of polynuclear leukocytes into the lumen of the gland and into the surrounding stroma; and (2) a chronic, round-celled and productive inflammation. In places, the infiltration extends for considerable distance into the tissues away from the glands, invading even the sphincter muscles. The mucous membrane (urethral aspect) of the strictured vesical neck shows absence of ulceration, being intact, hypertrophied and polypoid in places. Under this, there is inflammatory infiltration of the fibrous and muscular tissue and marked perifollicular and intrafollicular inflammation of the extra-urethral glands. Deeper, there are many prostate glands and some ducts, some of which show a milder degree of inflammatory change. In some of the prostate glands dilatation has taken place and old corpora amylacea have formed. The infiltration of the stroma of the prostate gland is also very evident, although less marked than in the zone near the urethra.

Diagnosis.—Chronic and acute perifollicular inflammation (periglandular).

On account of the reported observations from other sources, such manifest testimony with regard to the existence of this class of cases of urinary obstruction would not seem at all necessary except as a comparison with the class of cases which, as a result of examination and prolonged observation come neither under the head of mechanical obstruction of the bladder orifice nor yet under the head of any discoverable lesion of the central nervous system; a knowledge of such cases, moreover, has led to some doubt of the existence of this very definite lesion.

In a complete and studied investigation of the subject of atony of the bladder without obstruction or signs of organic nervous disease by J. W. Thompson-Walker of London, certain facts are brought out. Nine cases in all are reported, none of which, the author states, comes under the two categories into which atonic bladders are ordinarily divided, viz., the mechanical or neurologic. No local abnormality was discovered by the cystoscope or urethroscope and the presence of spinal disease was excluded. Yet, in four of the cases, or almost 50 per cent., gonorrhea had occurred and in two there was a history of syphilis. There was a varying amount of residual urine, from 4 ounces to complete retention. The onset of symptoms was gradual and progressive. The most constant feature peculiar to all of the cases was the marked trabeculation of the bladder as seen through the cystoscope, giving evidence of a futile effort on the part of the detrusor muscle to overcome the resistance offered to it.

A case in point but of explained etiology is as follows: About four years ago, I was consulted by a patient on account of undue frequency of urination and dysuria. The urine was high-colored and free from the elements of inflammation. Palpation of the prostate was negative; the soft rubber catheter was introduced without obstruction and obtained nearly a pint of residual urine. A full-sized sound was introduced without difficulty and nothing was revealed at the neck of the bladder to account for the vesical insufficiency. There were no ocular symptoms or other locomotor signs. In fact, the vesical impairment seemed to represent the entire situation so far as the clinical history was concerned. In the absence of any confirmatory sign or mechanical evidence of vesical obstruction, it was decided to give the patient a diagnostic course of potassium iodid and mercury. This was done with pronounced increasing doses and in a week's time the change in the local condition showed most radical improvement. The residual urine had diminished from 16 to 4 ounces, and the dysuria almost totally disappeared. The patient continued specific remedies and his symptoms were entirely removed. No one doubts, however, the occurrence of vesical symptoms as the sole manifestation of central nervous lesions. I cite this case simply as a striking example of the class of cases which are inflammatory and not degenerative and which show a marked response to constitutional treatment.

As stated at the beginning of this communication, the positive means are not at hand to dispute the claim

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that non-obstructive vesical retention does exist, although explanation of the cause of this trouble thus far given is not to my mind convincing. The mystery surrounding the condition in some of the cases, I venture to suspect, might be cleared up, were it possible to have a more exact knowledge of the functional mechanism of the vesicoprostatic outlet than it is possible to acquire by cystoscopic observation. A slight, valvular abnormality might be found to account for the condition in some instances, while a proportion of the other cases may belong to the category of diseases of the central nervous system, notwithstanding the lack of signs to support such diagnosis.

Those cases that are unmistakably outside of either of these divisions are not yet fully explained.

TECHNIC OF TREATMENT

For the treatment of that class of cases which is spoken of as mechanical, surgical measures are the only means that can be expected to afford relief. I still cling to the technic to which it has been my wont to resort from time to time, the end-results of which give weight to the force of its claims. It is now twelve years since the first operation was performed and the reasons advanced in favor of this special method then are still held to at present; on account of improvement in technic they have become all the stronger and may be appreciated by the following brief description:

Local, instead of general, anesthesia may be employed. A small perineal cut is made, which brings the operator close to the site of trouble and allows the introduction of the index-finger to investigate the condition at the neck of the bladder and the degree of existing contraction. The galvanocautery knife is then introduced and, under electrical cauterization, the vesical constriction is excised, on one or both sides, to such an extent as may be deemed advisable; this is accomplished without hemorrhage during or after the operation. The finger may be then reintroduced to ascertain the completeness of the incision or defect thereof; in the latter instance, it may be supplemented by another or longer incision. Finally, rest of the bladder, avoidance of straining, insured by the absence of the necessity to urinate after the operation, the short period of confinement and radical removal of the cause, are all advantages to be counted. By way of comparison, it has been my experience to come in contact in the hospital with a number of patients who have been operated on intravesically without the establishment of perineal drainage. The great distress and complicated condition that ensued in these cases, necessitating the emergent operation of immediate suprapubic drainage to relieve the bladder of distention and infected blood-clots, have further strengthened my conviction in favor of this operative technic.

25 Park Avenue.

Pain and Cancer.—The earliest and often for a long time the only symptom of intrinsic laryngeal cancer is hoarseness or some well-marked alteration of the ordinary voice. I implore you to rid your minds of the idea that "pain in the throat," or "pain shooting toward the ear," or "pain or difficulty in swallowing" are signs of early cancer. One wishes that no mention of them was made in surgical text-books, for they are late symptoms, so terribly late that when they make their appearance the patient's chance of cure has probably gone, for the disease has then become extrinsic as well as intrinsic, secondary deposits have probably taken place in the glands of the neck, and life can only be saved or prolonged by the mutilating operation of laryngectomy.—Herbert Tilley in *Clin Jour.*

PROSTATOTOMY BY THE METHOD OF GOLDSCHMIDT *

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A large prostate may cause little trouble, while a small gland may cause complete and continuous retention. Contraction of the bladder neck at times causes annoying conditions and is often overlooked by practitioners, who advise against any operative procedure because a large gland is not found on examination by rectum. In cases of contraction of the bladder neck, without enlargement of the gland, it is of no avail to remove the prostate. A slit of the median bar, when present, through the urethra, is simple, and, in cases in which drainage is not essential, is to my mind best accomplished by the method under discussion.

I shall relate briefly some of my experiences with the Goldschmidt instruments.

One patient, a man aged 67, had had a perineal prostatectomy performed and was unable to void urine without the use of a catheter. At the Toledo Hospital I incised the obstructing band with the Goldschmidt cautery, and the patient was able to void at once, and has been able to void over a period of about eighteen months.

Another patient had had a portion of the utricle removed by a perineal operation. He suffered from constant burning in the deep urethra and pain on urination. At times considerable pus was passed by urethra, and also some blood; this condition continued for several years. On examination with the Goldschmidt urethroscope, about twelve months ago, I found a large soft mass growing from the utricle. This mass I removed with the cautery knife; relief was rapid and has been permanent up to this time.

Another patient, aged 74, who was operated on at the Toledo Hospital, had suffered from retention at times. The prostate was somewhat enlarged, and a distinct and firm band, with contraction of the bladder neck, was found. An incision was made with good results.

In a number of cases of beginning enlargement with urinary disturbances incisions have been made with much improvement of the condition.

I have treated a number of cases of median obstruction and two cases of papillomas of the deep urethra in a similar manner.

Not to go into greater detail, in the cases which I have selected for this procedure the results have been uniformly good. In one case a violent urethral chill came on after instrumentation, and I have been unable to complete this operation, as the patient refuses further treatment. Goldschmidt has used the procedure repeatedly on the same patient and numerous incisions have been made at different times. The delicate construction of the instrument is one of the most serious drawbacks, as the cautery and light are easily burned out; also occasionally bleeding occurs and obscures the field of vision, although if considerable care is used and strong pressure of the irrigating fluid secured this can be avoided. I have never seen any alarming hemorrhage take place from its use. I watched carefully the work of Goldschmidt, Wossidlo and others for a number of months and in their experience bleeding does not occur often. A large residuum can be reduced several hun-

* Read in the Symposium on Obstacles to Evacuation of the Bladder in the Section on Genito-Urinary Diseases of the American Medical Association, at the Sixty-Third Annual Session, held at Atlantic City, June, 1912.

dred cubic centimeters after the first cauterization, as a rule.

The statements oftenest made by those opposed to the method, that it is unsurgical and that the repeated cauterizations leave the prostatic portion scarred and tattered, are not true of the procedure in the hands of careful operators. If used in all cases of prostatic obstruction the method, on the whole, is bound to be a failure. The contention that in those cases in which cauterization has been performed prostatectomy afterward becomes a necessity, because of infection and replacement of the cauterized tissue by new growth or the obliteration of the new channel by the enlargement itself, is well founded, if this operation is used in case which are not adapted to it.

In a recent article Dr. Young says:

> During recent years I have appreciated more and more that there existed a group of prostatic obstructions which could not be very satisfactorily tested by either perineal or suprapubic prostatectomy; the cases of inflammatory median bar formation or contracture of the neck of the bladder.
>
> I have developed an entire new procedure—the urethroscopic median bar excision by means of a special "punch"—which I have used since April 20, 1911, on about seventy patients with no deaths and with excellent results. This method makes it possible to perfect the result obtained either by perineal or by suprapubic prostatectomy in cases in which, by the contracture of the tissues after operation, slight obstruction is produced.

The instrument of Buerger is valuable for examination, and I wish it were possible to have the cautery feature attached.

A great instrument was brought into use when Nitze perfected his cystoscope. Obstacles which had seemed unconquerable surrendered, one by one, to his energetic and persevering will until a result was attained which is so simple that the original problem appears to have been an easy one. Without relying on the achievements of others, Nitze worked independently and set up in place of unsafe and uncertain methods which could be carried out only by masters in our profession, an easy, positive and definite method of examination which has proved a blessing to sufferers. At first the use of the Nitze instrument was intended only for the connecting urinary organs, but it was soon applied to the examination of the bladder and ureters.

ADVANCE IN ENDOSCOPIC METHODS

Endoscopy of the stomach, according to the method of Nitze, was later taken up by von Mikulicz, who also developed the exploration of the urethra with an instrument which made it possible to throw light into this canal. Oberlaender likewise advanced and improved this method, but in spite of his efforts he was unsuccessful in reaching a result which can be compared with that of illuminating the bladder. Goldschmidt says: "We are now able to know the exact normal or pathologic conditions of the bladder, and the same can be obtainable for the urethra."

The old endoscopic experiments on the bladder and urethra by Desormeaux, which were carried on still further by Grünfeld, consisted in nothing more than the insertion of the largest possible tube; over the inserted end of this tube, one portion of the mucous membrane of the bladder after another was viewed as the tube was withdrawn, by the reflection of light through the tube from the outside. At the best, only such portions of the wall of either the bladder or the urethra could be viewed at one time as could be surfaced over the end of this small tube. This condition of affairs was changed, as far as examination of the bladder was concerned, when Nitze invented and applied a finely developed lens-system, by the aid of which he could view a portion of the bladder many times larger than the inserted end of the instrument. Not all improvements in the last ten years were essential to the principles of the shape of the instruments, but have been usually applied to the electric technicalities of the lighting features of the different cystoscopes and urethroscopes. Excellent photographs of the interior of the bladder and urethra, attesting to the diligence and ingenuity of the photographer, Kollman, have been made by the use of different appliances.

Goldschmidt started his experiments some years ago along the line of Nitze's lens-system, and by hard work and close observation to detail he was able to solve the problem. By the use of cystoscopic optic and convex lenses of smaller diameter than the object to be seen he produces a wide field of vision. When such collective lenses are inserted into a lighted tube, the rays coming from the inner surface and end of the tube will be gathered by the lenses, affording a view of the interior, at the end of the optic. This picture can be enlarged through a convenient ocular, just as is done with pictures of relative objects in endoscopy.

Many trials were necessary before Goldschmidt was able to construct a practicable and simple instrument. In the progress of his work Goldschmidt used only living subjects and constantly adhered to practical methods. He used water as a dilating medium, instead of air or any of the various gases. While trying to produce the largest possible expansion by strong pressure of the dilating medium, he found, much to his astonishment, that only a little dilatation was necessary to produce a uniform tube of the urethra which could be accurately viewed with his optical appliances.

It would seem that such a procedure would be difficult for the anterior as well as the posterior urethra, when it is considered that they are separated from each other by a strong muscular compressor. Goldschmidt, however, has been led by numerous trials, under different and various circumstances, to a method whereby he can now with a simple instrument view the posterior urethra, especially the verumontanum and prostate, with great clearness.

Urination depends on the normal formation and normal condition of the prostatic urethra, bladder, etc., which are frequently impaired or changed by pathologic conditions of the prostate gland. An extraordinarily complicated system of tissues is located in the prostatic urethra. Infiltrations from old strictural processes, shallow ulcerations, diverticular changes, etc., can be readily seen.

The orifices of the ejaculatory ducts, pathologic forms of the colliculus seminalis, changes in the posterior urethra, changes in the prostatic labia, irregular passages to the bladder, a complete picture of the prostatic urethra, and, finally, a picture that shows the action of the sphincters brought out by the intravesical passage of the urine, can be seen.

THE GOLDSCHMIDT INSTRUMENT AND ITS USE

The instrument is so constructed that a stream of water can flow through the space between the endoscope and optic into the urethra and douche it out. The instrument ends vesically with either a rounded point or a bill-shaped point, and is inserted with a well-fitting obturator into the urethra, permitting cold or hot boric acid solution to run from an irrigator into the water-

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chamber. To douche out the anterior urethra only a slight pressure is necessary, but to douche out the posterior urethra it is necessary to raise the irrigator to about 2 meters above the pelvis of the patient. When the obturator is withdrawn, the optic is inserted, the water-chamber closed and the electric cables are connected.

The form of the instruments is such that their insertion and handling for ordinary cases cause no pain, and all operations can be done with local anesthesia. Bleeding does not often occur. Infection is reduced to a minimum by the continuous irrigation with boric acid solution. The normal anterior urethra by physiologic dilatation is like a uniform tube, much like the inner walls of the arteries; complete and incomplete rings can be seen, and the uniformity of the mucous membrane is interrupted only by shallow papillae and indentures, which are sharp-cut, round openings, and when infected become enlarged and deeper and often appear diverticular. The mucous fibers are often firmly attached to the mucous membrane and cannot be dislodged by a strong stream of water in chronically infected urethras.

It is interesting to observe how man is able to open voluntarily the mouth of the bladder as soon as he chooses to empty the bladder. This method no doubt will be much used to diagnose causes of nocturnal enuresis, as direct observation of the act of urination can be secured.

By changes in the prostate many disturbances of urination take place, especially in cases of enlargement or distortion of the middle lobe. Goldschmidt says: "We often find that the sphincter does not close, but irregularly cleaves." Whether the posterior urethra acts as a reservoir in the act of urination was much discussed some years ago. If the mouth of the bladder closes completely, which as a rule can readily be seen by the aid of the instrument, it becomes easy to decide whether the sphincter is properly functionating. Many and varied causes of disturbances of urination and difficulties in the prostatic urethra can be analyzed by direct observation of urination.

In cases of enlargement of the so-called middle lobe, and the lengthening of that portion of the urethra between the colliculus seminalis and the entrance to the bladder one can see, when the patient urinates, how this middle lobe is pushed forward and the lower wall of the prostatic urethra is pressed against the upper wall and, instead of a relaxation, a contraction of the urethra takes place. The lateral walls of the urethra become changed from old infectious processes, and in comparison with a normal urethra appear granulated, hard and inelastic. In the prostatic urethra are found many mucous accessories and polypoid tufts.

One of the greatest points of interest is the observation of the colliculus seminalis. Secretion from the ejaculatory ducts and prostatic ducts can be observed whether it is spontaneously evolved or artificially produced through massage by rectum. All the irregularities of the mucous membrane are clearly presented; small polypoid tumors are seen plainly, not unlike the tumors of the bladder as seen with the cystoscope.

Goldschmidt says: "After some time and many experiments I felt the need of modifying my instruments so that they could also be used at the same time for different operations within the urethra." With his instruments designed for operating, pathologic growths, polypoid tumors, granulations, etc., can be removed from the urethra. The greatest advantages are the distinctness with which the hypertrophied lobes of the prostate are seen, and the heretofore unknown precision with which they may be attacked. When the instrument is rotated round its axis the lateral walls, as well as the superior wall, can be seen. If the instrument is introduced deep into the posterior urethra the urethra can be seen more clearly.

If the light is just passed into the bladder the internal sphincter can be seen, and by moving the instrument one can appreciate the thickness of the lips of this orifice; any irregularity or thickening of the edge can also be observed very distinctly. The difference is particularly remarkable in cases of hypertrophy of the middle lobe of the prostate. The larger the lobe the more one is obliged to push the instrument inward until the protuberance of the sloping part of the bladder is reached. As the window of the urethroscope is divided into half centimeters, one can ascertain the size of the sphincter's edge, which normally does not exceed 0.25 cm.

In hypertrophy of the prostate we find that the shape of the urethra is completely modified; the vertical diameter and length are considerably increased. We find often with the endoscope in cases of hypertrophy that a transverse fold which Goldschmidt has designated the "prostatic fold," presents before the lateral lobes. Beyond this fold lies a cavity, similar in shape to the bulb, at the bottom of which is the verumontanum; in prostatic hypertrophy it is usually atrophied.

According to the degree of hypertrophy, the lateral lobes appear like tonsils in the visual field. They are generally moderately developed at the external os, and gradually increase in size as the center of the prostatic region is approached. Often the lateral lobes meet and press against each other. They generally recede toward the bladder at the extreme end of the urethra, and instead of the normal soft and regular ridge, a thick and hard fold forms the inferior edge of the bladder neck; instead of being slightly concave, as is normal, the os is generally rectilineal or oblique, indicating a thickening of either the mouth of the bladder or the extremity of the middle lobe.

The neck of the bladder having lost all elasticity, every effort at evacuation of the urine is followed by convulsive movements of the prostatic and posterior urethra. These movements also accompany the passage of the contents of the bladder into the posterior urethra. The clear water used for irrigation becomes turbid, being mixed with the contents of the bladder by these movements of the urethra.

If slight bleeding occurs the hemorrhage is washed away by the water which constantly flows through the visual field. The prostate presents in the field, and not only the anterior portion, but also the prostate is seen in its entirety, as the tonsils are seen in the throat.

When the nipple-like protuberances which obstruct the evacuation of urine are seen, they can be incised directly where they oppose micturition.

Some time ago a method was devised of introducing an electrolytic or galvanocautery needle through the rectum into the hypertrophied prostate; the size of the prostate was sometimes reduced by this means. The dangers of this method and the fact that the portion obstructing urination could not be located definitely must be apparent to all.

Selhorst attempted electrolysis of the hypertrophied lobes of the prostate with Oberlaender's endoscope, but was not very successful.

Electrolysis through the Goldschmidt urethroscope can be practiced if desired. Goldschmidt states that the decrease of the congestion of the mucous membrane after

this slight operation is marked; sometimes after the first treatment the number of nocturnal evacuations is notably decreased, and catheterization and micturition become much easier; after a few treatments more vigorous measures with the galvanocautery can be undertaken. By ignipuncture greater shrinkage can be obtained than by electrolysis, often with complete or almost complete retention; besides the enlargement of the lateral lobes, there often exists a rigidity of the vesical neck, produced by a true "middle lobe" or by a slight infiltration, which prevents the functionating of the sphincter.

The operation of Bottini and Freudenberg's modification thereof were performed in complete darkness, and are not to be compared with the Goldschmidt method, by which a full view can be obtained. The diagnosis, even by cystoscopy, shows only the prostatic prominences in the bladder, while most of the protuberances which prevent the evacuation of urine are caused by projections of the prostatic gland into the prostatic urethra.

It is unnecessary for me to say that the Goldschmidt method is not intended to replace prostatectomy in any way, but I trust that prostatotomy may decrease the number of cases which are now in the field of prostatectomy. Goldschmidt has used the method extensively in cases of beginning enlargement of the gland.

If one out of every five cases is malignant, possibly because of the increased irritation of the urine on a hypertrophied gland and the increased tension and pressure, the hypertrophy in the beginning may have been benign; may not this method in the beginning of the disease offer some hope by relieving the increased tension and pressure on the middle part of the gland and by decreasing the amount of the residual urine? In any event, the dangers of delay are reduced to a minimum in those cases in which cancerous development is inevitable, and, in the hands of those familiar with the urethroscopic (Goldschmidt) aspects of the enlargements, are not to be considered a serious drawback to prostatotomy. The prostatic urethra is sometimes thickened, according to Goldschmidt, in beginning cancerous enlargement of the gland. If this procedure might prevent cancerous development in only a very small number of cases, its use would be a valuable adjunct to urologists.

It seems almost superfluous for me again to call attention to the fact that this procedure must be used only in selected cases under the most rigid and careful asepsis; in cases in which tolerance to instrumentation has not been established the same painstaking methods must be used as are used in cystoscopy or any other bladder or urethral instrumentation. Disappointments will be less frequent and better results will be obtained by vigorous attention to these details and by thorough mastery of the technic and use of the instruments under discussion.

Tandler and Zuckerkandl agree that hypertrophy of the prostate always begins in the middle lobe, and that the mechanism of the bladder closure and the emptying of the urine may be ascribed to the sphincters of the prostate. Wilson and McGrath also agree in these findings.

Louis E. Schmidt, before the Chicago Medical Society in March, 1910, said:

> Occasionally it is desirable to examine the posterior urethra, and this can be easily done with the Belfield or Swinburne instruments. The Goldschmidt instrument, which is a water-dilating instrument, can be used for both examination and instrumentation of the anterior and posterior urethra, and is a unique instrument. I have had occasion to use it in the past few years and I can recommend it, as no other instrument gives the same information regarding the posterior urethra and the internal urethral orifice. The retrograde cystoscope gives only the image of the internal urethral orifice from the bladder side, while the Goldschmidt instrument gives it from the urethral side.

Pilcher in his excellent work says:

> The great objection to removing a section of a prostate by the galvanocautery knife has been the uncertainty of the procedure, the relatively high mortality and the fact that the benefit was only temporary. The cystoscope has removed the first of these objections, for the prostatic bar may be attacked under direct vision. The safest method is that devised by Young of Baltimore, who removes a prostatic bar by means of an endoscopic punch of his own design.

With all these different points taken into account, I now leave for serious consideration the Goldschmidt technic.

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IMPERMEABLE STRICTURE OF THE BULBOMEMBRANOUS URETHRA

(IMPERMEABLE TO THE PASSAGE OF INSTRUMENTS) *

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Impermeable stricture of the urethra is a condition so distressing and so dangerous to the afflicted patient that it well merits our interest and our best efforts.

The bulbomembranous urethra, as its name implies, is that portion of the urethra included within the bulb proper and extending backward through the triangular ligament and compressor urethræ muscle as far as the apex of the prostate gland. Anteriorly it is, of course, continuous with the penile urethra. In this short stretch, on the average 1½ or 2 inches in length, are found the great majority of strictures which in their different stages and various complications yield problems of treatment that demand the nicest judgment on the part of the surgeon in order to secure the best result for the individual patient.

Twenty years ago I had the privilege of addressing the American Medical Association on a similar subject, and I can now say that my opinions have changed but little, except that the lines have been drawn a little finer, so that the various operations are made to fit the case in hand. Moreover, we have now a larger number of treated cases from which to draw conclusions, and it seems to me that our patients come to us in a better condition than they used to; one seldom sees to-day a picture such as that depicted by Cock, which I shall quote later, and which in my early days of surgery was not unusual. That this is somewhat due to improved methods of treating acute inflammatory urethritis I have no doubt; but I like to give greater recognition to the general practitioner, who is willing to recognize the time when his abilities are insufficient and to advise surgical intervention early, so that we receive our patients in a better condition, both for the operation and for the attainment of satisfactory results.

Gradual dilatation, I will grant, has its benefits; but after organization has taken place it is my opinion that the knife is the safest and surest resource, as well as the

* Read in the Symposium on Obstacles to Evacuation of the Bladder in the Section on Genito-Urinary Diseases of the American Medical Association, at the Sixty-Third Annual Session, held at Atlantic City, June, 1912.

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most prompt, doing away with the long period of treatment and the ever-present danger of infection.

By the knife I mean the instrument under the guidance of the eye by external approach, not the blind internal cutting by means of a slot instrument—this should be reserved for the pendulous urethra only. When it was possible to pass the strictured area with a filiform and the patient was strongly opposed to a cutting operation, it used to be my custom to advise divulsion. In this I have never had that remarkable little instrument of Thompson's fail me, always following such treatment with subsequent dilatation with sounds; but if there is any one who still believes that this means of treating stricture of the urethra is preferable, safer and more surgical, to convince him that he is wrong I would ask him to make a urethroscopic examination of the portion of the urethra operated on; I am confident that this alone will forever disabuse his mind of the fallacy under which he has been laboring.

I would also like to mention again the value of the urethroscope in this field of work for the exclusion of false passages, and the ease with which a filiform guide can sometimes be passed when the strictured area can be examined and sounded with a filiform under guidance of the eye.

CAUSES OF IMPERMEABLE STRICTURE

Impermeable stricture of the urethra is due to one of three causes: (1) congenital malformations, (2) traumatisms, (3) inflammations.

That congenital strictures do take place cannot be doubted from the reported cases of Guibe, Cunningham, Hock, Posner and others. The most frequent location, as would be expected, is at the junction of the bulbous and membranous portions, where developmental and physiologic changes occur during embryonic life, though cases have been reported in which there have been several points in the course of the urethra which have been obliterated, and one must not forget the relative frequency of hypospadia; but I do not believe that the active operating surgeon sees many such cases of impermeable stricture of the deep urethra or of its complete occlusion, and I cannot recall having been consulted on such a question. Its treatment, though somewhat similar to that later to be outlined, would more naturally fall into the field of plastic surgery.

Traumatic stricture is often one of the hardest problems that a surgeon has to face. It is practically never possible to see these cases before there has been extravasation of blood and urine. The topography is distorted, the operating field soon becomes one of discouraging decomposition, and dissection has to be carried through structures in which all recognizable anatomy has almost invariably been destroyed, while in addition the patient's condition is often critical. Later the landmarks are changed, the urethra is elusive and often not even lined with the easily recognized mucous membrane.

In traumatic stricture the location is most often in the deep urethra, owing to the patient's having fallen astride some hard object; the rupture and subsequent obstruction may be behind, before or within the triangular ligament.

Inflammatory stricture of the deep urethra is undoubtedly the most frequent variety of stricture affecting this portion of the urethra. Ordinarily it is the bulbous urethra that is involved, but I have several times proved to my own satisfaction that the membranous urethra, contrary to the teaching of Fenger, has been the seat of inflammatory stricture. Moreover, inflammatory strictures show a tendency to be multiple, and in dealing with a tight one in the bulbomembranous region, the surgeon should take care not to overlook others of larger caliber in the penile urethra.

OPERATIVE TREATMENT

The methods of attacking an impermeable stricture of the deep urethra are in all five. I will consider each one briefly before outlining to you what I consider the best way to proceed.

1. Perineal Section: Incision down on the stricture, exposing it, without any guide. The patient being in the usual lithotomy position, incision is made in the midline and dissection is carried down, exposing the bulb; search is continued, the operator being careful to keep in the midline, until the thickened area of infiltration is reached and through it the urethral lumen has been found. Then the incision is continued anteriorly and posteriorly until the normal urethra is opened. A catheter is passed to the bladder and allowed to remain from three to five days.

This method is blind and time-consuming, and a strictured urethra may be too elusive for even the most experienced dissector. This method has been advocated lately by Stout, who says that it is easy to excise all connective tissue without injuring the mucous membrane at all, or entering the urethral canal. Still it would hardly be applicable to cases of impermeable obstruction.

2. Incision down on and exposing the urethra anteriorly to the stricture, generally aided by a sound lying in the anterior urethra. After the urethra is opened, which should be from a quarter to half an inch in front of the anterior face of the stricture, the urethral walls are retracted, and the face of the stricture examined in a good light, when it may be found possible to pass a probe or a filiform through it to act as a guide to the channel, the floor of the urethra being immediately incised along this, throughout the strictured area.

This method is certainly the most used and is in the average case easy. Its disadvantage lies in the fact that often we are unable to pass any instrument through the strictured area after the anterior face has been exposed, and we have to throw aside all this work and begin a perineal dissection, or else do as the late Prof. John Ashhurst advised: "If the opening in the structure cannot be found, the surgeon must cautiously dissect backward, with very light touches of the knife, and keeping strictly in the midline, until the dilated portion of the urethra behind the stricture is laid open." This, again, is poor advice for any but the experienced, for too often, as pointed out by Edward Cock, "although all the structures of the perineum had been most unnecessarily incised and damaged above, below, before, behind and round about the stricture, it was the stricture alone which escaped untouched without mutilation, while the catheter had been carried out of the canal above the stricture and reinserted below."

Another drawback to this method and one for which we must always be on the outlook is that our guide-sound may be lying in a false passage of some length and lying between the perineum and the true urethra, while the stricture may be in the urethra some inches anterior to the perineal incision. In such a case much time is lost looking for a passage that never existed, and if Ashhurst's advice is followed and dissection is carried backward, we would certainly be led astray into a deep dissection into the hemorrhagic structures of the bulb.

3. The method advised by the late Edward Cock of Guy's Hospital; since this operation has been greatly misunderstood and misinterpreted, I shall quote freely from Mr. Cock's original article of 1866. He starts by saying:

"The purport of this paper is not to show how a strictured urethra may be treated, but how the bladder may be got at when the canal has become positively and absolutely impermeable to instruments of every description." After speaking of acute retention cases in which he has aspirated the bladder suprapubically and through the rectum, he then takes up chronic cases "where the urethra has become permanently obstructed, or destroyed by constant pressure of urine from behind, and by reiterated attempts, generally fruitless, to introduce an instrument; where extravasation into the perineum has again and again taken place, causing repeated abscesses and their consequences, the formation of urinary sinuses and fistulas, until the normal texture of the perineum becomes obliterated, and is replaced by an indurated gristly structure; where the bladder has become thickened and constricted by constant action of its muscular coat until little or no cavity is left; and where the urine is constantly distilling by drops, either through the urethra or through one or several fistulous openings which dot the surface of the perineum, penetrate through the indurated scrotum, and even find their way to the nates below, and the region of the pubis above." This is the picture that Mr. Cock draws of the patient who is ready for his operation, and after again summarizing the pitiful condition he adds: "To give the patient a chance of life or restoration it is necessary to establish a free communication between the bladder and the exterior."

Mr. Cock did not believe in touching the stricture itself, as I shall show later. It was Guthrie who advocated that the operation should be completed by dividing the stricture, and when one stops to consider the time when Mr. Cock was writing, I think we must grant that his views were correct for the surgery of his day. Mr. Cock describes his operation in the following words:

"The patient is to be placed in the usual position for lithotomy, and it is of the utmost importance that the body and pelvis should be straight, so that the median line may be accurately preserved. The left forefinger of the operator is then introduced into the rectum, the bearings of the prostate are carefully examined and ascertained, and the tip of the finger is lodged at the tip of the gland. The double-edged knife is then plunged steadily and boldly into the median line of the perineum, and carried on in a direction toward the tip of the left forefinger, which lies in the rectum. At the same time by an upward and downward movement the vertical incision may be carried in the midline to any extent that is desirable. The lower extremity of the wound should come to within about half an inch of the anus.

"The knife should never be withdrawn in its progress toward the apex of the prostate, but its onward course must be steadily maintained, until its point can be felt in close proximity to the tip of the left forefinger. When the operator has fully assured himself as to the relative positions of his finger, the apex of the prostate and the point of the knife, the latter is to be advanced with a motion somewhat obliquely either to the right or the left, and it can hardly fail to pierce the urethra." He then follows the same channel with a probe and the latter with a cannula or female catheter and says: "The operation is now complete and it only remains to secure the cannula in its place with four pieces of tape." As to the stricture, he says: "If the previous destruction has not been very great, and if the case progresses favorably, the swelling of the perineum and scrotum gradually subsides, the induration disappears and the urinary sinuses become obliterated. The urethra may then be examined in the ordinary way to test its permeability, and one may be agreeably surprised to find that the sound or catheter readily passes through the former stricture, until it strikes against the cannula."

4. The fourth method I like to call "Young's operation," in deference to this master surgeon of the perineum. Young advocates exposing the apex of the prostate as one would start a perineal prostatectomy, and after a good exposure has been obtained of one-third of this gland and the membranous urethra by carefully dividing the central tendon of the perineum and the recto-urethralis muscle, the incision into the urethra is made through the tissue of the apex of the prostate where the urethral walls are more rigid. A sound is passed outward to the posterior face of the strictured area and a free communication between the anterior and posterior urethra established.

This method has undoubted advantages; it is carried out along definite anatomic lines, and except in large men with fatty perineums or others in whom the ischial tuberosities are close together and the perineum deep, one with any surgical experience in this region should have no trouble in locating such an anatomic landmark as the apex of the prostate gland.

5. The fifth method calls for either a primary or secondary suprapubic incision into the bladder, as a preliminary to urethrotomy behind the stricture. This has been advocated and the assertion made that it "will shorten the time required for operation, diminish shock and tend to minimize the amount of anesthetic required, besides lessening the danger of suppression of urine, of uremia or septic pneumonia."

With all this I cannot agree; I do not believe that time will be saved by doing two operations on two different parts of the patient requiring a change of position, and in fact two changes if the suprapubic wound is subsequently closed; it is difficult to keep the technic aseptic; and in cases with a contracted bladder which cannot be distended before suprapubic incision, this part alone carries with it dangers of injury of the peritoneum, subsequent persistent and infected suprapubic sinuses and the possibility of ventral hernia, all of which must be considered of major importance; and if the surgeon is familiar with the landmarks of the anatomy of the region operated on (and this I maintain every surgeon should be), to expose the apex of the prostate as advocated by Young, I consider the simplest procedure of all. That a preliminary suprapubic incision will have any effect at all on the subsequent development of suppression of urine or uremia I can see no reason to accept.

These I consider to be the five cardinal methods of approaching an impermeable stricture of the deep urethra, though I fully realize other methods have been advocated from time to time, such as that of Ruggi, who exposes the urethra by transverse incision, and the ideas of Arnott, Jameson, Guthrie and others, who present minor variations which any skilled operator would initiate if the necessity arose.

TREATMENT OF STRICTURED AREA WHEN ONCE EXPOSED

The older teaching was to incise the area of coarctation, drain and subsequently dilate the area. Subsequently the operation of urethrectomy was advocated by Roncet, Heusner, Koenig, Molliere and others, who taught that when the strictured area did not exceed 25 mm. or 1 inch in extent, the entire area could be removed and the edges of the severed urethra united over a catheter.

Wolfler reports three cases in which the arc was excised and covered with Thiersch grafts, and Meusel and Keys transplanted a flap from the prepuce to form a roof for the excised urethra. As the former, or older method, of incision only was inadequate for surgical

methods of to-day, so I believe the latter too advanced and certainly too time-consuming to be used in many of the cases in which the condition demands celerity. But I can see no reason to do otherwise than remove as much as possible of this dense, organized, gristled scar tissue, under the same principles which apply to contracting scars elsewhere on the body. This is one point where urethral surgery has shown an unjustifiable lack of progress in keeping pace with surgery of other parts of the body, and too many are following the teaching of the older writers to incise the stricture only.

Guyon excises only the floor of the urethra, which he asserts is usually the site of the stricture, and closes over the catheter in the urethra with three layers of tissue, and I must lend my approval to leaving the roof of the urethra, or its mucous membrane, if possible, as a source for a rapid proliferation of epithelium and covering of the new urethra with a mucous membrane.

The complete removal of all this old connective tissue is certainly a help to Nature's repairing powers, and it is my belief that there is much less tendency for new contracture after complete removal than after mere incision and drainage.

Another point that I wish to emphasize is that a perineal drain should be left after a perineal operation. To close a perineal wound up tight I consider a surgical fallacy. It is my habit after having established a passageway through the area of coarctation, having excised all the dense scar tissue, having placed a catheter with its tip within the vesical orifice, having closed over the catheter with what tissue I can find, in layers, to be sure to bring the catheter out of the urethra anterior to the point of stricture and fasten it to the anterior angle of the skin incision in the perineum. Whether a catheter is to be placed in the anterior penile urethra and also brought out through the perineal wound, I leave to the choice of the operator, as I have obtained good results both with and without such a drain. It is evident, however, that two tubes make a larger fistulous tract in the perineum than one, for subsequent closure, but if the operator is careful to bring the posterior tube out of the urethra as far anteriorly as possible, through normal healthy urethral wall, subsequent rapid and complete closure of the fistula is practically assured.

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ABSTRACT OF DISCUSSION

ON PAPERS OF LRS. CHETWOOD, YOUNG, HARPSTER AND DEAVER

DR. GORDON F. MCKIM, Cincinnati: My experience with Dr. Young's operation has been limited to ten cases, in eight of which the result was satisfactory. Patient 1 complained of frequency both day and night. He had a well-marked prostatitis, 1 ounce of residual urine and a definite bar. Routine treatment of prostate for six months gave no relief. Excision of bar with the punch gave relief. Patient 2 complained of frequency at night. He had a low-grade prostatitis and a definite bar. The punch operation gave no relief. Cystoscopy two weeks after operation showed that I had made him an artificial median lobe. The result was unsatisfactory. Patient 3 complained of partial incontinence during the day. He had a small bar. Excision of the bar with the punch gave relief. Patient 4 complained of frequency both day and night with straining. He had intermittent hemorrhages and several attacks of retention. Excision of a definite bar with the punch gave relief. Patient 5 complained of great frequency both day and night. He had no residual urine but a very thick bar, which was removed in two operations, because of hemorrhage. Relief was complete. Patient 6 complained of frequency during the night with straining. Urine showed colon infection. Cystoscopy revealed a very thick bar and 2 ounces of residual urine. Excision of the bar with the punch gave relief. Patient 7 had had a suprapubic prostatectomy six months before I saw him. He complained of retention and severe straining; had a dense bar with absence of lateral lobes. Punch operation gave relief. Patient 8 complained of frequency at night with straining. He had definite prostatitis and a small bar. Excision of bar gave complete relief. Patient 9 complained of frequency and inability to empty bladder, requiring catheterization. Bilateral hypertrophy of prostate with median bar. Prostatectomy was refused. Punch operation was done with partial relief. Prostatectomy gave complete relief. Patient 10 complained of frequency at night with straining. He entered hospital with retention. Excision of small bar gave relief.

Case 2 was a failure because I neglected to palpate the instrument through the rectum after removing what I thought was all of the tissue. Had I made this examination I would have detected the thickening. Case 8 was a typical hypertrophy, and it was due to the patient's pleading and my own curiosity that I removed the bar with the punch. At the time of removing the gland there was no evidence of a bar. Young has produced an instrument that can be used in these selected cases of median bar formation with satisfactory results. The technic is simple, the danger of hemorrhage can almost be eliminated by removing all clots from the bladder before the patient leaves the table and by competent postoperative attention, and the convalescence is only a matter of a few days.

DR. EUGENE FULLER, New York: I am thoroughly in accord with Dr. Young's method and the conservative methods of prostatectomy for some minor grades of prostatic obstruction. They are worthy of trial in these cases. But I do not think that Dr. Young or any one else has tried them in the majority of cases of prostatic obstruction. I have given up treating the severe complicated grades of such strictures in the manner just advocated. In such cases not only the stricture, but also many pathologic changes in the perineum require to be dealt with. There may have been retention for a long time; instruments may have been tried by various operators and a great deal of trauma caused, the result being the existence of not only a chronic inflammatory condition of the tissues, but also a urinary infiltration. If one operates by attacking the perineum immediately in such conditions, what results are obtained? How many of Dr. Deaver's patients are able to get along without a great deal of dilatation and trouble after operation? Suppose you do try to resect; a tremendous amount of urethra must be removed in such disorganized conditions, and the chance is that a great deal more is resected than is necessary. My method in these cases is, first, to divert the urine from the urethra and perineum through the establishment of a suprapubic urinary fistula and, second, to do a plastic repair operation on the perineum after a few weeks. After the bladder has been drained and the urine diverted from the perineum for a month, the stricture is not impermeable, the chronic infiltration has disappeared and there is nothing left but soft tissue; then you can do the perineal operation, resecting whatever is necessary, and very likely no resection will be necessary in repairing the urethra. A number of years ago I operated on a patient who was thought to have had a cancer of the perineum because of a great fungous mass of perineal fistulas. An instrument could not be passed. I started a perineal operation, but found the tissues so hard and infiltrated that I could accomplish nothing. The man was in a condition of overflow, and I did a suprapubic cystotomy. I sent him out wearing a suprapubic tube. He came back at the end of six months and said that he could pass as good a stream as he ever did. He had grown tired of wearing the tube and after three months had pulled it out. I passed a No. 30 French sound into the bladder. The sinuses had healed everywhere. I have used that information ever since. I do not expect that result in every case, but one can thereby prepare for a perineal operation with little disturbance, whereas if one tries to resect infiltrated urethras he cuts away more structure than necessary and does not get good results.

DR. E. O. SMITH, Cincinnati: In a case in which there is a great deal of inflammation and infection of the bladder, is there infection in this denuded area?

DR. MARTIN KROTOSZYNER, San Francisco: I would like to ask Dr. Young how long the average time of convalescence is after the punch operation; or rather, how long the hospital treatment lasts.

DR. A. J. CROWELL, Charlotte, N. C.: My experience with the operation that Dr. Young has just described is limited to eight or ten cases, one of which is of sufficient interest, I think, to report. The patient had had a perineal prostatectomy done by a competent surgeon in a neighboring town. Previous to that operation he had had complete retention of urine for about four years. The patient was 45 when he first suffered with this complete retention. Previous to that he had had symptoms, of course, and he had used a catheter for four years. Then a perineal prostatectomy was done. When I saw the patient the bar was still present. The patient said that the doctor told him that the gland that he removed was very small. Three years after the perineal prostatectomy I used the punch; following the operation the patient urinated. After the catheter was removed the patient urinated regularly, and has had no trouble up to the present. I washed his bladder out thoroughly until the water returned clear, and after that I trusted to luck. He had hemorrhage, of course, for a day or two, but it was not profuse, and I have not had to catheterize him since the operation.

DR. ALEXANDER RANDALL, Philadelphia: I would like to report a case showing the use of this instrument in other conditions than those described by Dr. Young. A boy, aged 9, was kicked by a horse, producing a traumatic rupture of the urethra, apparently in the membranous region. He had had in all twelve operations for reconstruction of the urethra. Three of the operations were emergency suprapubic cystotomies, done on account of complete retention. The twelfth operation was done by Dr. Young, who attempted to reconstruct the urethra. A suprapubic opening was made, retrograde catheterization performed, and then with a perineal section the catheter was brought out through the posterior urethra to the perineum. It was tied and left in place for fourteen days, and then removed from the suprapubic incision, but kept in the perineum. The suprapubic opening was allowed to close. After the suprapubic wound closed the patient had a urethra of 14 French and perfectly patent. The catheter was removed, I think, about the twenty-third or twenty-fourth day, but the patient could not void. The catheter could be passed easily, and the boy was kept in the ward for some time, so that he got used to catheterizing himself through the perineum. The question was, what was the condition that caused obstruction? We dilated with the Kollman dilator up to 28 F. Then cystoscopy was performed through the perineal opening and contracture of the neck of the bladder observed. It was practically a cicatricial scar encircling the vesical orifice. It was dilated up to 32 French, but still the patient was unable to void. It then occurred to me that we might use this instrument. It was easily inserted. Only one bite was taken out of the posterior edge of the vesical orifice. This bite was about the size of one's little finger-nail in all dimensions, after which the boy voided freely. The fistula then closed up completely, and the patient was seen four months after the operation, and his subsequent history and cure have been entirely satisfactory and uneventful.

DR. CHARLES H. CHETWOOD, New York: There is not much to add to the phase of the subject in which I have taken part, because we seem to have practically agreed on the most important aspect of this malady, namely, the existence of a condition which stimulates prostatic hypertrophy mechanically whether we call it bar contraction of the prostatic orifices, or contracture of the neck of the bladder. One type fuses into the other, and they are all more or less alike from a mechanical point of view in not being suited to the technical operation of enucleation. When we get down to cases, then I believe that there is some reason to vary the treatment and the method of applying it. I have performed over a hundred operations by the galvanocautery technic and have naturally become prejudiced in favor of it. That it is the choice in all cases, I would not state. I realize that there are a great many cases in which the eye can appreciate the condition through the endoscope, which would be better treated by the technic advocated by Dr. Young and by the Goldschmidt urethroscope. On the other hand, there are other cases in which the ability to see what you are doing is more theoretical than real and the difference would be greater in the hands of operators who are not so experienced as Dr. Young and others. Many of my patients were operated on because the method employed was considered conservative; in other words, these were cases with well-advanced renal complications, cases of pyelonephritis which demanded the minimum interference; success depended on time but also demanded the most favorable conditions following the operation—and it is not necessary for me to lay stress here on what drainage means to the bladder and the kidneys.

One of my early patients, a man aged 60, had complete retention, was in dire straits and was going down hill fast. The cystoscope revealed a stream of pus coming down from the kidneys. I do not believe that such a case would have stood the punch operation, because the patient needed the kind of drainage that is best afforded by the perineum only. In cases in which the urine is clear, the endoscopic operation would appeal most to the skilful operator. It comes down to the same question in litholapaxy and lithotomy. There are some cases better suited to the intravesical operation, and on the other hand, in some cases the added advantage of perineal drainage cannot be overestimated.

DR. H. H. YOUNG, Baltimore: A great many of these patients have had infection when operated on. While any irritation present may have been increased afterward, yet there was nothing in the way of sloughing. There is a perfectly clean wound and no reason for infiltration. The punch does not cut deeply enough to enter tissue that would become infiltrated. The time varies in different cases, averaging five days. The patients should be watched for a week, or sometimes longer, because in one case there was a secondary hemorrhage that came on about a week after the operation, and it was necessary to pass a big evacuating catheter to evacuate the clots. I do not think that it is a safe operation for general use. Unless a man is prepared to follow up his case, to see it soon, and preferably has a good hospital intern to look after it, he ought not to attempt it. An open operation is distinctly better. I have been using the instrument to evacuate blood-clots for quite a while; and it is a valuable help. You get them out at the time of the operation, and after that the sphincter closes down and no trouble is experienced. The use of continuous irrigation for from twenty-four to forty-eight hours is the best part about it, because it keeps the blood moving and the bladder clean and combats infection.

The punch has a very restricted use. We must be careful not to use it in cases of prostatic hypertrophy. I experimented with three, and had to do a prostatectomy afterward. The patients were very fat, and I did not realize how large the lateral lobes were. But for a restricted line of cases, such as small contractures, small bars and small muscular hypertrophies, in younger men, I think it has quite a field, particularly as an operation to put on the finishing touches after a prostatectomy which has not quite given the results it should. We all know that sometimes capsules do not contract quite right; sometimes there is a valvular condition, sometimes a fibrous condition; sometimes you leave a little glandular tissue that causes obstruction. In those cases, by means of either the rongeur for pedunculated lobes, or the punch for a fibrous condition in the median portion—and we have had two patients who had an obstruction anteriorly—we could remove the obstruction. I do not use the endoscopic light as a routine. It is not needed. The punch is introduced until the fenestra is in the bladder, the cutting knife is pulled back, and immediately there is an escape of urine; then you draw it out until the obturator comes beyond the bar, which drops into it; if it does not come any farther after you turn 90 degrees you know that it is the prostatic bar. If it does, you know you have entrapped the trigon. I do not use the endoscopic knife except for the first cut, and often not for that.

DR. C. M. HARPSTER, Toledo, Ohio: I think we are all pretty generally agreed here, that there is such a condition as contraction of the bladder neck. Among the older practitioners

and in some of the older works, the extensive dissections that had been made in Glasgow and Edinburgh, appeared to prove that contraction of the bladder neck did not exist. I am certain that all of us that see these cases are thoroughly convinced that contracture of the bladder neck does exist. In cases of pathologic conditions of the neck of the bladder I am convinced that my method is of great use.

THE RELIEF OF INTRACTABLE AND PERSISTENT PAIN DUE TO METASTASES PRESSING ON NERVE PLEXUSES

BY SECTION OF THE OPPOSITE ANTEROLATERAL COLUMN OF THE SPINAL CORD, ABOVE THE ENTRANCE OF THE INVOLVED NERVES *

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Dr. W. G. Spiller has suggested[1] the operation of cutting the anterolateral column of the cord for the relief of persistent pain of organic origin, and published a report of the first case illustrating this procedure, the operation being performed by Dr. E. Martin. The importance of obtaining relief for these cases is self-evident and, as I have seen a number of these patients dragging out their sufferings over months, more or less chronically poisoned with morphin, the suggestion of Dr. Spiller appealed to me. Compared with cutting of a large number of posterior roots to effect a similar result, it seemed a much simpler and safer procedure. Moreover, if our physiology was correct, patients so operated on would lose only pain and temperature sense in the affected parts, whereas section of posterior roots (even two consecutive ones[2]) produces loss of all three sensibilities.

The patient of Drs. Spiller and Martin, a man of 47 years (1909), suffered from an inoperable growth involving the lower part of the spinal cord.

> The man suffered greatly from pain in the lower limbs and required morphin every night for relief. In January, 1910, . . . the man had very slight movement at each hip and in the left knee, and no movement elsewhere in the lower limbs. These limbs were greatly wasted. Sensations of touch, pain, heat and cold were lost in the back of each thigh and in all parts of the legs below the knees, although deep pin pricks seemed to be felt in the left calf and left foot. . . .

Jan. 19, 1911, Dr. Martin divided the anterolateral columns on both sides of the cord. January 22 there was great relief from pain in both lower limbs.

> Pain was felt occasionally in the lower limbs during the three weeks following the operation, but the man was positive that it was less than before the operation. . . . In March, 1912, . . . his countenance expressed no pain and he never complained unless he was asked concerning his condition, when he would reply that he sometimes had pain. As he is a foreigner and not very intelligent, and his condition is pitiable, it is hard to judge whether he really has any pain from the tumor. The operation seemed to have been successful in the diminution of pain.

In the patient whose case I wish to report in this paper, the persistent right-sided pains stopped at once after section of the left anterolateral column at the level of the tenth dorsal lamina. The relief obtained was most striking, and as the patient was walking about eleven days after the operation, a more satisfactory outcome could not have been desired.

History.—The patient, Carrie F.,[3] aged 43, was a kitchen helper. Family history was of no importance. In June, 1910, the patient had a hysterectomy for carcinoma of cervix. She was well till September, 1911, when she was seized with sharp and shooting pains in the right lower extremity. The present trouble had been progressive in character; beginning with severe pain in September, 1911, the pain had become worse and was referred to the right lumbosacral region as well as the right lower extremity.

First Examination.—The patient was small and thin and evidently suffering from pain. Her gait was limping, which she explained by saying pain prevented her from straightening out. She showed at times slightest hypesthesia of all three sensibilities on the right side from spine to midaxillary line from the level of the upper lumbar vertebra over the right buttock. The knee-jerks were normal, and there was no motor paralysis. The *x*-ray of the spine was negative. The lumbar spine, though tender (irregularly so), was not in the least fixed. The general physical examination was negative except for a tender flat mass in the right pelvis felt high up through the rectum, first detected in June, 1912.

On May 29, 1912, a test injection of stovain[4] into the spinal canal was made with complete temporary relief of all pain. This result, plus the subsequent finding of the tender mass in the pelvis, made the diagnosis clear and suggested the possibility of obtaining relief by section of posterior roots, lumbar first to sacral fifth, or by section of the opposite anterolateral tract.[5]

June 29, 1912, patient continued to have severe attacks of pain in back and sacral region. Sensory examination revealed no area of anesthesia.

Second Examination (July 1, 1912).—Cranial nerves 1, 2, 3, 4, 5, 6, 7, 11, 12 appeared normal; the eighth hears watch at only 6 inches with each ear. There was no disturbance in the field of vision as grossly tested. There was slight diminution in corneal sensibility.

Upper Extremities: Good power; sensation and reflexes normal.

Lower Extremities: Negative, except for slight exaggeration of the knee-jerks. No Babinski, no Oppenheim and no clonus.

Trunk: Abdominal reflexes normal. Third and fourth lumbar spines tender but spine freely movable. No disturbance of sensibility. Sphincters intact.

Rectal Examination: Flat, very tender, hard mass in right pelvis high up.

Operation.—July 2, 1912. Dorsal laminectomy (dorsal ninth and tenth) and section of left anterolateral column were performed by Dr. E. Beer. Time of operation, twenty-five minutes. Patient stood operation very well. The cord was exposed after removal of two laminæ and incising of the dura. Nothing abnormal was noted. A strabismus hook was passed about a posterior root (left side) and the cord then rotated on its long axis by traction, thus exposing the lateral columns. Another strabismus hook was passed in front of the cord to steady the latter while incision with a small sharp knife was made. The incision began approximately 2.5 mm. from the exit of the posterior root, the blunt side of the knife being directed toward the crossed pyramidal tract (which is very important, lest this be cut accidentally[6]). The incision was carried forward about 2.5 mm., and to the same depth. There was very slight bleeding from the section thus made. The dura was closed with silk. The muscles and fascia were closed with catgut, and skin closed over these. In

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* From the Fourth Surgical Division, Bellevue Hospital.

1. Spiller, William G., and Martin, E.: THE JOURNAL A. M. A., May 18, 1912, p. 1489.
2. Seen in one case of posterior root section in 1910, in which the fifth lumbar and first sacral were cut.
3. For the transfer of this patient to the surgical service I wish to thank Dr. C. Strong.
4. The importance of such a test cannot be overestimated. If stovain or novocain, etc., produce relief, the operation promises relief. If they fail the operation is contra-indicated, for self-evident reasons.
5. For reasons mentioned above, the latter method was chosen.
6. Compare Dr. Martin's technic with double-edged knife.

the accompanying sketch the shaded tract indicates the area cut (Fig. 1).

Postoperative History.—July 3, 1912: Patient feels remarkably well and states that she has none of her old pains. There is almost complete motor paralysis of the left lower extremity, there being only slight flexion and extension in the toes, ankle and knee. The left knee-jerk is absent; the right is active.

July 4, 1912: There is slight improvement in motor paralysis. The patellar jerk is returning. The distal part of the left extremity shows more motor improvement than more proximal part. There is absolute loss of pain sensibility (tested with pin) in right lower extremity.

July 5, 1912: The complete sensory status is indicated in the accompanying diagrams (Fig. 2). As will be seen, there is complete loss of pain sense over the whole right lower extremity down from the mesial aspect of the groin anteriorly and posteriorly all the way down from the middle of the buttock. In the same area there is absolute loss of cold perception, cold being interpreted as heat. In this area heat is perceived slightly, and always as much less hot than in normal parts. Sensation of touch appears practically normal. In other words, the area affected involves all the sacral nerve fibers and all the lumbar nerve fibers up to the first lumbar, which is affected only in the lower half.

Fig. 1.—Anterioiateral tract (midlumbar).

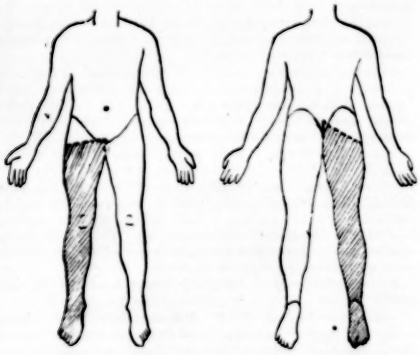

Fig. 2.—Diagrams of extent of pain anesthesia.

July 8, 1912: Sense of position in all joints is very accurate. Perception of pressure, as in squeezing the muscles of the right lower extremity, is slightly impaired, pressure being less distinctly perceived than in the left lower extremity. The knee-jerk in the left leg is much stronger. Motion is much improved.

July 10, 1912: Dressing. Sutures removed. Good union. Motion in left leg improving steadily. Sense of position in both legs normal. No further change in loss of pain sense in right lower extremity. Palpation of pelvic mass, which caused severe pain before operation, not painful now.

July 14, 1912: Examination shows loss of pain sense as on diagrams. Disturbance in thermal sense as before, except that area has contracted about 1 or 1.5 cm. downward. Pressure sense less acute than in normal extremity. Sense of position of joints is normal in both lower extremities. Both knee-jerks are active. There are no trophic disturbances, no bladder or rectal symptoms and no motor weakness in right lower extremity. Patient is able to walk; motor power in left lower extremity has returned almost completely. All pain in right lower extremity is gone and no vestige of it felt since operation.

July 16, 1912: More careful study of quantitative changes in touch sensibility in right lower extremity suggests a very slight diminution in perception of touch as compared with the other normal extremity.

July 18, 1912: During the past four days there has developed an edema of the right lower extremity, probably due to pressure of the growth on pelvic vessels. This makes locomotion more difficult. Deep pressure over the tibia may produce some pain. While the patient is lying in bed the heel-to-knee test of the lower extremity brings out an ataxia which, however, is almost entirely absent when the same test is made sitting in a chair. How much of this is due to a real ataxia and how much to the marked edema and consequent heaviness of the extremity cannot be decided at the time. There is no disturbance of this kind in left lower extremity.

July 21, 1912: Repeated attempts to produce pain (deep) by firmest pressure on tibia were unsuccessful (pressure producing subcutaneous bleeding). The ataxia in the right lower extremity has disappeared with the disappearance of most of the edema under firm bandaging. Patient walks about ward; occasionally complains of pains on the left side; never has the least pain on the right side or in the right lower extremity.

July 26, 1912: Condition continues the same. Patient fell in trying to step over window-sill and bruised herself, causing some pain in her back.

NOTE BY DR. RICHMOND

Aug. 1, 1912: Patient complains of pains in the back and says that she cannot sleep. It is relieved by ½ grain of codein by mouth. Walks about the ward, but appears weak, especially in the right leg.

Aug. 3, 1912: Patient complains of general weakness and pains, and has pain in the back when lying flat. On percussion of lumbar spine tenderness is elicited. Patient is emotional and despondent. There is increased frequency of urination and burning in the urethra.

Aug. 6, 1912: Condition about the same. Patient is very restless at night, but sleeps after administration of codein or salt water. Examination of right leg shows absence of sense of pain, just as after the operation.

Aug. 12, 1912: For the past days the patient has been very comfortable, sleeping well and having no pains. She is up every day, either walking with a crutch or resting in chairs.

Aug. 20, 1912: For the past eight days the patient has been for most part very comfortable, but is emaciating steadily, while the tumor is growing.

Sept. 5, 1912: Weakness and emaciation are progressing rapidly. Patient is in bed most of the time and has pain in her back. Marked edema of the right leg and of the labia has developed. The recurrence in the pelvis is much larger, extending up to the umbilicus, and is not tender. Sensations in the right lower extremity are unchanged. The pain in the back is constant with slight remissions.

Sept. 15, 1912: The pain is less. Patient is in bed all the time, with steady progression of all pressure symptoms on vessels, bladder, etc.

Sept. 22, 1912: Patient appears somewhat stronger to-day, and during past week. Pains in the back recurred to-day.

Sept. 29, 1912: Patient has been up in a chair for the past six days, and though the pains in the back have again become less, there is distinct progression of the cachexia.

Oct. 1, 1912: Condition is unchanged. Patient sits up in chair most of the time.

Oct. 24, 1912: Pain in the back has returned; there is none in the region of analgesia. Patient cannot walk without assistance and is getting weaker.

Nov. 15, 1912: Patient gradually has become more and more weak, and several days before her death she passed into a comatose state.

CONCLUSIONS

1. Surgically considered, the operation of cutting the anterolateral column without doing serious damage to the rest of the spinal cord is perfectly feasible and not difficult.

2. Therapeutically considered, the almost complete freedom from pain[7] produced by this surgical intervention met the indications presented in the case here reported, and in many other sufferers a similar intervention, I feel sure, will give similar relief.

3. Physiologically considered, section (complete?) of the anterolateral column produces (a) loss of pain sense on the opposite side of the body; (b) a disturbance in thermal sense which suggests that the fibers for heat and cold are disassociated in the cord; (c) slight disturbance of deep pressure sense and slightest disturbance in touch sense, both being impaired without producing any disturbance of sense of position.

48 West Seventy-Fourth Street.

SPASTIC PARAPLEGIA WITH THE CUTANEOUS REFLEX OF DEFENSE OCCURRING IN POTT'S DISEASE

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Spastic paraplegia is resultant on any impairment of conductivity of the chief motor tracts in the spinal cord. This impairment of conductivity may be due either to intramedullary changes, as, for example, primary degeneration of the pyramidal tracts, or to extramedullary causes, such as a tumor pressing on the spinal cord. These conditions and their treatment are so different that an early diagnosis is essential for effective treatment and prognosis.

In 1899, Babinski[1] described a form of spastic paraplegia due to an organic lesion but without degeneration of the pyramidal tract. The chief characteristic of this form of spastic paraplegia was a contracture of the limbs in flexion, the tendon reflexes being usually not exaggerated and often diminished, while the cutaneous reflexes, on the other hand, were so markedly increased that irritation of the skin on the paralyzed side would cause defensive movements of rapid withdrawal in flexion of the limb. Again, in 1911, Babinski[2] called attention to the difference between this condition of spastic paraplegia, with contraction in flexion and continuous exaggeration of the cutaneous reflex of defense, and the usual type, with contraction of the limb in extension and continuous exaggeration of the tendon reflexes.

A case with these clinical symptoms was reported by Claude[3] which, at necropsy, proved to be a case of sarcomatous meningitis. Another case, reported by Souques,[4] was diagnosed multiple sclerosis; there was no necropsy. Gelma[5] reports a similar case of contracture in flexion and exaggerated cutaneous reflex of defense. The occurrence of this cutaneous reflex of defense in Friedreich's ataxia was noted by Babinski, Vincent and Jarkowski.[6] Lian and Rolland[7] reported a case of spastic paraplegia of "the cutaneous reflex type of Babinski" occurring in Pott's disease. Sicard and Gutmann[8] described such a case, with operation and cure. One must not overlook the fact that paralysis in Pott's disease is not always accompanied by demonstrable changes in the vertebrae, for not infrequently there is a paraplegia in Pott's disease without deformity of the spine caused by the pressure on the cord of an extradural exudate. According to Cadwalader,[9] this occurs in 73 per cent. of cases.

I have to thank Dr. Carl D. Camp for permission to report the following two cases seen in his service in the hospital of the University of Michigan.

CASE 1.—*History.*—W. S., a farmer, aged 28, entered the hospital complaining of great difficulty in walking and of pain, tremor and stiffness in the lower limbs. His family history and previous medical history were negative. The patient had had the usual children's diseases. He denied venereal disease. In January, 1911, the patient was struck by a log and thrown to the ground; the log rolled completely over the right side and pinched his head quite badly. Except for a few severe bruises he had no ensuing symptoms at the time of his injury. In February, 1912, the patient fell on the ice, striking his side and back. During the month of March he had occasional sudden, sharp pains in his side and back. In May, the patient first noticed a "lump on his spine" and about the second week in July his legs began to feel weak and numb and the muscles twitched. His limbs gradually became weaker and stiff until at the time of his admission he could barely walk and complained that his limbs felt numb and cold.

Examination.—The physical examination of the patient was negative except for a marked deformity about the third, fourth and fifth thoracic vertebrae. The urine and blood examinations were negative. The neural examination of the head and upper extremities was negative. There was no atrophy or deformity of either lower limb. Sense of pain, touch, temperature, motion and position was normal in both limbs. The umbilical reflex was not obtained and the cremasteric reflex was absent on the left side. The knee-jerk was slightly increased on the left side and very markedly so on the right. The Achilles reflex was increased on the left side; there was ankle-clonus on the right side. Plantar irritation caused extension of the great toe on the right side and flexion on the left. The cutaneous reflex of defense activated by a pin-prick was very forceful on the right side; there was none obtained on the left side. There was no paralysis of the limbs. All movements were possible but were weak and slow, more especially on the right side. There was pain on jarring the spine and on pressure over the deformity. The spinal fluid showed a slightly increased albumin content but was otherwise negative.

Treatment.—August 25, the patient was put to bed and a Buck's extension was applied to both limbs. August 27, the knee-jerk on the left side was about normal; that on the right side was still increased. The Achilles jerk on the right side was still exaggerated but there was no ankle-clonus. The Babinski reflex was still present on plantar irritation of the right foot. There was no cutaneous reflex of defense obtained.

CASE 2.—*History.*—J. L., an iron-molder, aged 38, was brought to the University Hospital, Aug. 20, 1912, because of paralysis of both lower limbs. His family history was negative. He had had the usual children's diseases and had malarial fever in 1902. In 1907, his left kidney was removed; the cause for its removal was unknown. He gave no history of trauma and denied venereal disease. The present trouble began in August, 1911, when the patient was taken with severe pains across the lower part of his back. Shortly after that he noticed that his right leg was becoming weak and there was a feeling of numbness down the front side. In

7. All pains in extremity had ceased. Whether a higher section would have abolished the pains that developed at a higher level along the spine, further experience must demonstrate.

1. Babinski: Bull. et mém. Soc. méd. d. hôp. de Paris, 1899, p. 342.
2. Babinski: Rev. neurol., Jan. 12, 1911.
3. Claude: Rev. neurol., Feb. 2, 1911, p. 249.
4. Souques: Rev. neurol., March 2, 1911, p. 376.
5. Gelma: Rev. franç. de mém. et de chir., 1912, No. 5.
6. Babinski, Vincent and Jarkowski: Rev. neurol., 1912, xi, 463.
7. Lian and Rolland: Rev. neurol., June 30, 1912, p. 843.
8. Sicard and Gutmann: Rev. neurol., 1912, iii, 833.
9. Cadwalader: Am. Jour. Med. Sc., April, 1911.

September, he noticed the same condition in the left leg. This feeling of weakness and stiffness, more marked in the right leg, gradually increased until the patient could walk only with the aid of a crutch and cane. All during this time he had sharp pains down both limbs. In February, 1912, the right leg gave out entirely and he could barely use his left leg because of its weakness and the severity of the pain in it. Since February, 1912, he has been confined to his bed. He had retention of urine and now has to be catheterized. He is constipated.

Examination.—The patient was greatly emaciated. The examination of the thorax revealed nothing abnormal. There was a slight deformity of the spine at about the fourth lumbar vertebra and in the sacral region. He had large bedsores over the tuberosity of both ischii. Examination of the urine showed a few white cells and a few granular casts but was otherwise negative. Blood examination showed 3,580,000 red blood-corpuscles, 8,000 white blood-corpuscles and 65 per cent. hemoglobin. Blood-pressure was 190.

The following observations were made by Dr. Camp: "Neural examination of the head and upper extremities is negative. Both lower limbs are greatly atrophied, the right thigh measuring 11 and the left 11½ inches in circumference.

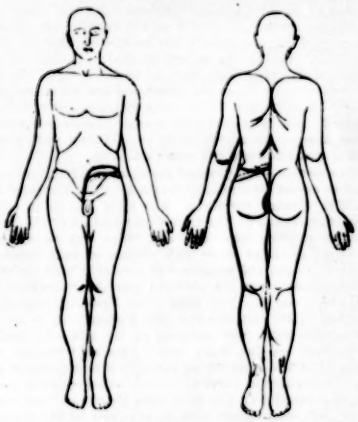

Diagram showing areas of anesthesia. Upper heavy line, upper limit of anesthesia to heat; lower heavy line, upper limit of anesthesia to cold; dotted line, upper limit of analgesia.

The calves of both legs measure 8 inches. Both limbs are slightly flexed at the thigh and at the knee. Except for a slight flexion and adduction of the thigh, the limbs are completely paralyzed. There is complete loss of sensation in the left leg and on the left side of the abdomen extending up to about 2 inches below the umbilicus and on the back to about the level of the fourth lumbar vertebra (see illustration). Both sides of the scrotum are anesthetic to all forms of stimuli. The line of anesthesia does not exactly correspond to the upper limit of analgesia or thermasthesia. The umbilical reflex is not obtained. The cremasteric reflex is present on the right side, absent on the left. The cutaneous reflex of defense is obtained in both limbs but it is more intense in the left. The right knee-jerk is greatly diminished and the left is absent. The Achilles jerk is not obtained on either side. Plantar irritation causes no movement in either foot. To the left of the coccyx there is an area of preserved sensation to all forms of stimuli. The anal reflex is present. The patient complains of severe pain in the left limb and of slight pain in the right. He has retention of urine and his bowels are constipated." The spinal fluid had a slightly yellow color and coagulated spontaneously. There was no increase in the cell content.

Treatment and Course.—Operation was advised and a laminectomy was performed August 29. The skin incision, made in the median line, extended from 1 inch below to 3 inches above the line of anesthesia. The laminae of the third fourth and fifth lumbar vertebrae were removed. Between the fourth and fifth vertebrae there was, slightly to the left side, a mass of hard, yellowish tissue about one-half inch in diameter which, on microscopic examination, proved to be a dense mass of fibrous connective tissue, either fibroma or granulation tissue, probably the latter. This was removed and the canal was found apparently free above and below. The dura was opened and the spinal fluid appeared clear. The cauda equina was seen and seemed small but presented nothing abnormal. The wound was closed without drainage.

August 30: Examination shows practically the same findings as before the operation but no cutaneous reflex of defense reaction is obtained in the left leg.

September 2: The patient can contract the left calf muscles and the left posterior thigh muscles and adduct the thigh. He complains of pain shooting down the left leg. He can slightly extend the left leg but has no other movements in that leg. Tapping the left patellar tendon causes contraction of the left calf muscles and adductors of the thigh on the left side but no extension of the knee. The right knee-jerk is normal or perhaps slightly diminished. The left and right Achilles jerks are normal. Plantar irritation on the right side causes no movement; on the left side there is no movement of the toes but a drawing up of the left leg. Sensation to pain is absent in the left leg but the upper limit of the analgesia is lowered to the groin, and the scrotum on both sides is sensitive to pinpoint.

September 10: The patient has pains in the left leg which are nearly as bad as before the operation. There is a catheter in the bladder. He has incontinence of feces and thinks he can move his legs a little better than before the operation. The abdomen being bandaged, the umbilical reflex cannot be taken. There is considerable wasting of both legs above and below the knee, a bilateral foot-drop and some swelling of the feet. Tapping the left knee gives rise to contraction of the flexors of the left knee and the left calf muscles. Tapping the right knee causes a normal knee-jerk. The Achilles reflex is present, equal and normal on both sides. Plantar irritation on the right side causes no movement of the toes, but the patient has a painful sensation; there is no pain on the left side. Deep pressure on the calf muscles on both sides is painful. There is complete loss of pain and tactile sensibility over the left leg except that deep pin-prick on the inner side of the left calf is sometimes felt, though delayed. The patient says that he feels touch and pin-point normally in the right leg. He has normal sense of motion and position of the right foot; this is lost in the left. The upper limit of anesthesia does not extend quite as high as before. The genital organs have normal sensation to pinpoint.

The patient left the hospital September 10.

These two cases and those reported by other observers show that the spastic paraplegia accompanied by the cutaneous reflex of defense is often due to a gradually progressing compression myelitis. This phenomenon also occurs in Friedreich's ataxia and in multiple sclerosis; in these diseases we find areas of sclerosis which may involve the pyramidal tract, but the axis cylinder of the nerve fiber may escape destruction and the secondary degeneration be comparatively slight.

In Pott's disease there is an extradural pressure on the spinal cord which may or may not cause a secondary degeneration of the pyramidal tract. If it does not, then the results of relief of the pressure should be a restoration of function.

It is therefore highly important to be able to distinguish clinically between a paraplegia due to degenerative changes in the pyramidal tract and one caused by pressure not producing marked secondary degenerative changes. In the former case treatment is

of little value; in the latter the prompt removal of the compression by surgical or other measures may be followed by a great improvement. If this differentiation of the two types of spastic paraplegia assists us in recognizing the case in which an operation may be attended with good results, it is of great value. Not only is the cutaneous reflex of defense occurring in spastic paraplegia with contraction in flexion one of the earliest signs found, but it may also be present with complete loss of sensation to touch, pain and temperature, abolished reflexes and paralysis of the affected parts. A definite proof that it is produced by pressure is the fact that it disappears on removal of this pressure, either by palliative or by operative means.

In conclusion, I wish to say that this differentiation of the spastic paraplegias can not fail to be of great value in the early recognition of a condition in which early treatment offers gratifying results and in which the usually delayed diagnosis produces such disastrous effects.

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ONE OF THE POSSIBLE FACTORS IN THE CAUSATION OF PELLAGRA*

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Among the various phases of the problem presented by pellagra, of its symptomatology alone can we be said to have even moderately full knowledge. Its epidemiologic features and geographic distribution are as yet but imperfectly known, while in spite of the labors of many investigators whose researches have been directed toward the discovery of its etiology, the knowledge thus far gained leaves that important factor still largely within the realm of theory.

Many hypotheses of causation, based on certain aspects of the disease or its environment, have been advanced, but none of these, perhaps, quite accounts for all the phenomena involved.

It is not our purpose to discuss these theories in detail or to attempt to show the truth of any one of them, far less to propound a new one, but rather to point to facts which may have a bearing on the question.

If it be admitted that pellagra is a distinct morbid entity and not a mere symptom-complex, it is evident that the essential factors in its causation and spread must be uniformly active wherever the disease is endemic. In spite of this self-evident fact, the phenomena of the disease present many puzzling and apparently contradictory facts, under the varying conditions of environment and habit of its victims. Yet somewhere among these confusing phenomena must lie the constant element which is the cause of the manifestations of pellagra.

That the disease is due to an infection is an opinion held by a considerable body of investigators, and the arguments in favor of this hypothesis seem to warrant its serious consideration. On this hypothesis and the epidemiology of the disease are based the theory that pellagra is an insect-borne disease. This theory, first formulated by Sambon, has been given prominence during recent years and has received the concurrence of able students of the disease.

If the disease is due to an insect-borne infection, a consideration of some entomologic facts which appear to have significance in this connection may be worth while.

As pointed out by Knab,[1] for an insect to be a potential transmitter of human disease, it is necessary that four factors should be active. These factors are the habit of biting man regularly, a more or less close association with him, a certain degree of longevity and, finally, abundance. These biologic characteristics assure the opportunity to bite man, the practical certainty that numerous members of the species will bite him, not once only, but that they will secure successive blood meals and that a considerable number will survive beyond the developmental period of the hypothetic organism involved and again inflict bites.

The qualifications mentioned may vary in their relation to each other, as when great abundance and the persistence of the parasite in the blood of the vertebrate host compensate for a less close association with man, which occurs among the mosquito transmitters of malaria.

Apparent exceptions occur in some of the ticks, which are not usually domestic in any sense, yet convey certain diseases of man. But the power of this group to transmit the germs of disease through their progeny, together with their longevity and the duration of the life-cycle, extend the possible period of infectivity to at least several years, in the case of some species.

The phenomena of pellagrous incidence, as exhibited in America, differ in some important respects from those seen in some parts of Europe, according to authoritative reports.

Sex incidence in the Western hemisphere shows a marked preponderance of female cases.[2] In some localities these cases bear a relation apparently of more than three females to one male, but always in marked preponderance. This seems not to be true of Europe, where the cases among females, although somewhat more numerous than those of males, are in much smaller preponderance than in America.[3] There may be several reasons for this difference in the proportion of the two classes of cases in these countries, but the most obvious is that of habit and occupation. The peasant woman of Europe shares the work of the men of her family in much greater degree than is the case among the women of any class in this country. Whether at work in the fields or about her home, the peasant woman is exposed in much more nearly equal degree to the same conditions and liability to infection, whatever be its source. How this may influence the occurrence of the disease in the two sexes will be referred to later.

According to published statements, the class of the population affected with pellagra is much more sharply defined in Europe than in America. If we may believe these statements, the disease is confined almost exclusively to the strictly rural population and to those in the most abject circumstances in life. Its occurrence among the well-to-do is the exception.[4] In the United States

* From the Bureau of Entomology, U. S. Department of Agriculture.

* Paper read at the second triennial meeting of the National Association for the Study of Pellagra, Columbia, S. C., Oct. 3 and 4, 1912

1. Knab, Frederick: Unconsidered Factors in Disease Transmission by Blood-Sucking Insects, Jour. Econ. Ent., 1912, v, No. 2.

2. Roberts, S. A.: Pellagra, St. Louis, 1912. Beall, K. H.: Bull. Tex. State Board Health, 1911, v, No. 9. Tenn. State Board Health, Report on 316 Cases of Pellagra, 1911. Lavinder, C. H.: Reprint from P. H. Rep. 65, 1911. Grimm, R. M.: P. H. Rep., 1911, xxvi, No. 38.

3. Roberts, S. A.: Pellagra, St. Louis, 1912. Babes and Sion: Die Hautserschien der Pell., Innsbruck, 1909.

4. Marie, A.: Pellagra, Transl. by Lavinder and Babcock, The State Co., Columbia, S. C., 1910.

no such sharp line can be drawn and no class of the community is free from its attack. That city and town dwellers are exempt is an assertion so frequently made as to have become practically axiomatic. If true of the towns and villages of Italy, as asserted by Sambon,[5] it is not applicable to urban communities in America, except possibly those of the largest size, although it is undeniable that those persons whose occupation or residence is in an essentially or truly rural environment are more subject to the disease. But as we shall show, from the point of view of possible insect transmission, many American towns of a size deserving the designation of cities are essentially rural communities.

Assuming the possibility that pellagra is an insect-borne disease whose causative organism is present in the peripheral circulation, a review of the biting insects which might be involved in its transmission centers the attention on the body parasites, fleas, lice and bedbugs and the winged suctorial insects, such as mosquitoes, stable-flies and the members of the genus *Simulium* or buffalo gnats.

Beall[6] has pointed out that the infection of pellagra seems to be incurred "in the home, or around the home," basing his conclusion on two facts: the marked preponderance of female over male cases, and the age of males affected, a large percentage of whom are of the age at which the time spent in the home is greatest. Beall believes that the preponderance of female over male cases is due to the greater exposure to infection and not to greater susceptibility or lower resistance, which is, as he says, contrary to medical experience. The higher rate of infection in very young and elderly or old males, he says, is also due to greater exposure.

In this connection it is noteworthy that in malaria, an insect-borne protozoal disease, there is no difference in the susceptibility of the sexes to the disease.[7] Observations by others appear to bear out Beall's conclusions, and from this point of view a consideration of the classes of insects mentioned above brings out certain facts.

The mosquitoes of the principal regions in which pellagra is endemic are either crepuscular or nocturnal in their biting habits, and men, in their hours of leisure or during sleep, would be exposed to mosquito-borne infection equally with women. There are also facts of distribution in connection with this group which seem to exclude them from grave suspicion of pellagra transmission. As an instance, the distribution and abundance of mosquitoes in certain parts of the Southeastern states is in inverse ratio to the occurrence of the disease.

With the exception of the facts of distribution, those just cited as probably excluding the night-biting mosquitoes as potential carriers of pellagra apply with equal force to the bedbug. The spread of the disease, the occurrence of isolated sporadic cases, the by no means rare infection of persons whose habits and condition in life go far to protect them from attack, and the large number of families in which but one or two members are affected in spite of habits conducive to indiscriminate attacks seem to argue against the bedbug as a possible carrier. The long life of these insects and their resistance to starvation with their persistence in infesting a building when once they have gained lodgment are undeniable. These habits might be regarded as indicating them as the source of the so-called "place infection" of pellagra; but this phenomenon has by no means been shown actually to exist, and it is doubtful if the habits just mentioned outweigh those which seem opposed to its incrimination.

The head-louse and body-louse must be considered, especially in view of the comparative abundance of the former species in some localities where pellagra is prevalent; but here too it is difficult to reconcile the habits of the parasites with the sex incidence of the disease; while in view of the frequence of its occurrence in individuals of unimpeachable personal habits and associations, the agency of these insects is inconceivable.

Fleas are usually considered among the most ubiquitous of insects, yet it is rarely that the dwelling of a country home is more heavily infested by these insects than the barns and other outbuildings with their animal tenants. Yet if this is not the case, how can the infection of the female members of the household in greater proportion than the males be accounted for if the flea is to be incriminated? It is difficult to see how, under the circumstances, women could be more exposed to attack than men.

Under such conditions as exist in the mill villages of South Carolina, the family dog or cat which is not infrequently kept might be blamed, and the infection "in or around the house" explained. But the histories of many cases taken in these villages show a rather small number of instances in which reports of the attacks of fleas can be obtained. Such as are obtained usually refer to their presence during the summer months, a fact which seems incompatible with the vernal outbreak of pellagra.

Furthermore, it must be borne in mind that most fleas are highly selective in their choice of host. In this locality the most common species which normally attack domestic animals are the cat-, dog- and chicken-fleas. When from expedience these fleas resort to man, they usually remain on him but a short time and frequently leave him without inflicting bites. The transference from man to man of such fleas probably happens but seldom under ordinary circumstances. We have been unable to obtain the human flea, *Pulex irritans*, in South Carolina, and although probably to be found in the state, it can scarcely be a serious pest.

It is asserted that endemic pellagra always occurs in close proximity to the haunts of *Simuliidae* and that therefore these insects are the transmitters of the disease.

In the regions in which pellagra is endemic the genus *Simulium* is represented by many species, none of which has a range as wide as the distribution of the disease. The biting habits of these species with regard to man are imperfectly known, but from recorded observations it appears that, of the American species, some attack man readily, while others seem never to do so. Some bite human beings with great infrequency, while still other species will bite in one locality but not in another.[8]

The great abundance of *Simulium*-infested streams in many localities in which pellagra is prevalent is unquestionably highly suggestive, but until the identity of the

5. Sambon, L. W.: Prog. Rep. Invest. Pell., Jour. Trop. Med. and Hyg., Oct. 1, 1910.
6. Beall, K. H.: Bull. Tex. State Board Health, 1911, v. No. 9.
7. Castellani, A., and Chalmers, A. J.: Man. Trop. Med., New York, 1910.

8. A revision of the American *Simuliidae*, north of the southern boundary of Mexico, which is now being made, indicates in certain instances that what have heretofore been regarded as single species are in reality composed of several distinct forms. It is highly probable that the apparently contradictory reports of the biting habits of certain species actually refer to two or more forms, and if this is shown to be the case it will serve to clear up one important point in the biologies of the American species of the group. Such a conclusion would tend to weaken the position which investigators have assigned to these flies in connection with disease transmission. There is every reason to believe that what is true of the American species is true of the European also, and that more exact study will show more numerous forms to exist there, each with special habits.

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species present and the biting habits of these species *in that locality* are determined, the significance of the condition is greatly lessened. While knowledge of the biting habits of the group remains in its present incomplete state, the proximity of a *Simulium*-breeding stream to the point of origin of a case of pellagra does not warrant a definite conclusion of attacks by the adult flies or their connection with the infection.

There are pellagra-infested localities in South Carolina, the numerous streams of which contain *Simulium* larvae in numbers sufficient to justify the belief that if the adult flies were in the habit of attacking man with regularity, some impression would be made on the memories of residents of the neighborhood. Yet in these localities systematic and diligently pursued inquiries have failed to elicit more than an occasional report of the attacks or noticeable presence of such flies, even when dwellings have stood within a few feet of *Simulium*-infested water. In places infested by mosquitoes, to even a moderate degree, their presence is always well known, as is likewise the case in localities where sand-flies (*Phlebotomus* and *Ceratopogon*) are found. With due regard for the generally unreliable character of popular observations and reports on such matters, it is inconceivable to us that flies of the appearance and habits of the *Simuliidae* could be present and attack man in sufficient numbers to account for the prevalence of the disease, and yet fail to attract attention and to remain in the memories of their victims.

It is said on good authority that the *Simuliidae* are short-lived, as the short duration of individual outbreaks seems to indicate. This would lessen the probability of the transmission of the virus of pellagra through their agency unless, as is possible, the developmental period within the insect is of short duration. Should this be the case, the short life of the insect would greatly reduce the chance of a second human being receiving an attack after the infection of the fly.

None of the species of *Simulium* is closely associated with man, while as has been pointed out, with certain exceptions, all of the insects known to be carriers of human diseases are more or less closely associated with him, the transmission in the case of the exceptions being effected by means of factors which do not exist in connection with the flies under consideration. Less close association is always compensated for by great abundance and persistent attack, two attributes which cannot be said to be generally manifested by *Simulium* species in South Carolina.

Representatives of the genus appear to be totally absent from some arid and semi-arid regions in which pellagra is known to occur.[9] If it can be definitely shown that cases occurring in these arid regions originated there, that fact would in itself eliminate *Simulium* from consideration in connection with the disease. It is known to us that pellagra is endemic in a locality of large area in which *Simulium*, though present, occurs in such exceedingly small numbers as strongly to indicate that transmission by them would be impossible.[10]

Large towns are not frequented by these flies, although it should be pointed out that *Simulium* larvae have been taken by us in small streams in South Carolina within the built-up sections of towns of several thousand inhabitants. At the same time no satisfactory reports of attacks by the adult flies could be obtained.

Conforming much better to the requirements pointed out is another blood-sucking insect, *Stomoxys calcitrans*, the biting stable-fly. It is of cosmopolitan distribution and has practically uniform habits throughout its range. In most places it is abundant, even excessively numerous, and is closely associated with man and his domestic animals, breeding about his outbuildings, frequenting the vicinity of his dwellings and even entering them, sometimes in considerable numbers. Although it prefers to attack domestic animals, it readily bites man with frequency but some slight irregularity, depending apparently on meteorologic conditions and the immediate availability of its normal prey.

How long the stable-fly lives is not known with certainty. Its length of life is probably considerable and it breeds throughout the summer season, appearing in early spring and persisting until late fall. In these characteristics of association with man, blood-sucking habits and a reasonable degree of longevity, it conforms to our ideas of the potential disease-carrier, and if connected with the transmission of pellagra it may explain certain epidemiologic phenomena of the disease.

As we have before stated, the majority of the cities and towns of this region are, from the point of view of *Stomoxys* propagation and distribution, rural communities in that they offer facilities for both of these functions, which are not inferior to those existing in country districts. The densely built-up business sections are of small area when compared with the spaciously planned residential districts in which houses are surrounded by lawns and grounds of greater or less extent, and the keeping of domestic animals, principally horses and cows, is almost universal. Breeding of these flies takes place not only about the private stables referred to but in and about the public stables and wagon-yards in the business sections. As a result, the stable-fly is to be found in all parts of such towns and in the smaller ones is numerous everywhere.

In such towns in this region, pellagra occurs endemically.

The common habit of *Stomoxys* of frequenting and entering dwellings under prevalent conditions would explain, were the fly incriminated, the high percentage of cases among those who spend most of their time at home. In the mill villages of South Carolina, where many cows are kept, they are in the majority of cases milked by the women of the family, as is usually the practice on the small farms also. Many reports are received of the attacks of these flies on the milkers, and a large percentage of persons interviewed in these places gave accounts of having been bitten.

The number of individuals of this species not infrequently found in living-rooms of houses of a certain class would go far to explain the occurrence of several cases in a single family as the close association would favor the communication of the disease. This probability is heightened by the fact that *Stomoxys* does not usually take a full meal at one time, as do mosquitoes, but passes from one man or animal to another.[11]

Domestic animals are frequently followed for long distances by these flies, and they are readily transported by railroad cars and steamships, as we ourselves have observed. It can be seen that droves of cattle or, under modern conditions, cars in which live stock is being

9. Beall, K. H.: Bull. Tex. State Board Health, 1911, v, No. 9.

10. Endemic pellagra occurs in Barbados, West Indies, yet no species of *Simulium* has been found to inhabit that island in spite of the systematic work of government and other entomologists. The existence of any species whose habits conform to those uniformly prevalent in the known representatives of the genus is practically precluded by the geologic and topographic features of the island.

11. Osborn, Herbert: Bull. 5, N. S., Bu. Ent., U. S. Dept. Agric., 1896. Brues, C. T., and Sheppard, P. A. E.: Jour. Econ. Ent., 1912, v, No. 4. Maxwell-Lefroy, H.: Biting Flies of India, 1907.

carried, might offer to infected flies means of migration to distant places, and cause isolated infections, thus accounting for sporadic cases, the histories of which show no apparent exposure to the disease.

CONCLUSIONS

If pellagra is caused by an infection, especially if of protozoal origin, and is transmitted by an insect, the present state of our knowledge leads us to the provisional belief that the following deductions may be tenable.

Under conditions existing in the region of pellagrous endemicity in South Carolina, the lice, fleas, mosquitoes and bedbugs show characteristics of habit, distribution and abundance which appear to exclude them from serious consideration in this connection.

The biting habits and, to a certain extent, the distribution of the flies of the genus *Simulium*, together with their lack of habits which bring them into close association with man, seem to present weighty arguments against the incrimination of these gnats as the active agent in the transmission of pellagra.

The cosmopolitan biting stable-fly, *Stomoxys calcitrans*, from its distributional and biting habits, its close association with man, its conformation to the obvious requirements of the disease-transmitting insect and the agreement of its special characteristics with the phenomena incident to the occurrence of pellagra, offers strong reasons for its consideration under the premises.

It is hoped that attention may be directed to this fly and observations bearing on its possible relation to the disease be generally made.

We would add that, should a causative organism be shown to exist which is a bacterium rather than a protozoon, and should this organism invade the body through either the mouth or the skin, the house or typhoid fly, *Musca domestica*, and the flies whose habits at all resemble it, would lie under strong suspicion. It is needless to say that the house-fly is excessively abundant and of universal distribution in the region studied.

We are also aware that the communication of pellagra in a purely mechanical manner by biting insects is a possibility and, if shown to exist, would radically change our ideas as to the insects which may be involved.

Finally, we wish to repeat that essential uniformity of causation must be assumed to exist universally and that the demonstrated failure of a supposed etiologic factor to account for the phenomena of pellagra in one locality must serve to exclude it from consideration as a factor in another.

Cause of Beriberi.—Gouzien has been studying the records in regard to beriberi in the penitentiary at Hanoi in French China from 1906 to 1910. He concludes that rice undoubtedly plays a very important part in the pathogenesis of the disease, but that the superiority of the unhulled to the polished rice does not lie in any antitoxic effect of the hulls but in the fact that they protect the grain against degeneration from heat and moisture. He considers the disease an intoxication, not an infection, and cites in support of this theory the fact that a very severe epidemic of beriberi was followed by an epidemic of scurvy, the latter disease attacking only those who had been affected by the former. The two diseases seem to be in a sense interchangeable. Moreover, even when polished rice of the same quality is used, marked decrease is noted in the epidemic when the diet is varied by a free use of fresh vegetables, fruits and meat. In addition to the dietetic factors, overcrowding and dampness seem to play an important part in the course and severity of the disease. Gouzien is at the head of the medical department of the French army in Tonquin, and his article is published in the *Annales d'Hygiène et de Médécine Coloniales*, 1912, xv, 3.

CLINICAL DATA ON MALIGNANT RENAL TUMORS

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The surgical records of St. Mary's Hospital, Mayo Clinic, show that eighty-three malignant tumors of the kidney were operated on up to July 1, 1912. The tumors are classified according to their histologic structures as hypernephroma (mesothelioma), sarcoma, carcinoma and embryoma. Clinical differentiation, according to the above histologic classification, usually cannot be made prior to exploration. From a clinical point of view, therefore, the various forms of tumor will be considered together.

As has been repeatedly noted by various observers, the cardinal symptoms of malignant renal tumor are hemorrhagic urine, tumor and pain. Given a clinical picture of a palpable tumor in the region of the kidney, hemorrhagic urine, persistent pain referred to the region of the tumor and the general symptoms of malignancy, the diagnosis of malignant renal tumor will usually be found correct. These complete data, however, were found present in but thirty-two of the eighty-three cases under consideration. Two of the three symptoms were present in thirty-seven cases, and but one symptom in fourteen cases. It is evident, therefore, that the clinical diagnosis must more often be made with but one or two of the cardinal symptoms.

SYMPTOMS

Hematuria.—Probably the most important symptom in malignant renal tumors is hematuria. It was given as a symptom observed by the patient in fifty-three, or 64 per cent., of the cases, as a primary symptom in thirty-nine, or 36 per cent., and as the only symptom in ten, or 12 per cent., of the cases. In forty-one, or 77 per cent., hematuria was noted more than a year before the patients presented themselves for operation. Gross blood in the urine was found at the time of examination in thirty-three, or 40 per cent., of the cases. As a symptom observed by the patient only, hematuria may be of doubtful value. An occasional hematuria may be disregarded or forgotten, particularly in the female, who may believe it to be of menstrual origin, and in the less intelligent individual. Again, patients frequently give a history of slight hematuria which may originate from some passing condition in the bladder or urethra. Thus in fifty cases of tumor in the surrounding organs which did not involve the kidney but resembled tumor of the kidney on palpation, a history of possible hematuria was obtained in four, or 8 per cent., of the cases. A positive history of repeated hematuria was obtainable in but forty-one, or 50 per cent., of the cases. Gross blood in the urine at the time of examination is of the greatest value. Of what value is the finding of microscopic blood? In twenty-one cases of renal tumor blood was found only on microscopic examination. In the last fifty cases of abdominal tumor which, on palpation, simulated renal tumor, but which, on exploration, were found not to involve the kidney, six cases showed microscopic blood in the urine. The possible causes for the existence of a few blood-cells in the urine are so many that their discovery microscopically is really of little practical diagnostic value.

Tumor.—In sixty-five patients, or 78 per cent., a tumor mass could be felt on clinical examination; its existence was known to twenty-eight patients, or 34 per

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cent., of the total; it was the first evidence of disease in twelve patients, or 15 per cent.; thirty-seven patients were unaware of its existence, although the majority of them had had more or less medical care previously; and it was given as the only symptom by five patients, or 6 per cent. The tumor was described as freely movable in five patients, or 6 per cent.; as slightly movable in forty-five patients, or 54 per cent., and fixed in fifteen patients, or 18 per cent. In twelve of the latter the tumor was found inoperable on exploration. Palpation of tumors in the zone of the kidney is frequently found of very uncertain diagnostic value even when aided by percussion and bowel inflation, and presents many possibilities for error. The following data in palpation of the kidney may be of practical value:

1. Tumors of the surrounding organs so frequently simulate renal tumor in position, form and consistency that it is quite impossible to differentiate them by means of palpation alone.

2. Renal tumor, particularly when involving the lower pole, may extend irregularly toward the median abdomen or down into the pelvis so as to simulate tumor of the various extrarenal organs.

3. Renal tumor may be very uncertain on palpation (a) when the kidney lies high, (b) when the tumor involves the upper pole, and (c) when it occurs in a fat abdomen. It is frequently astonishing how large the tumor is found to be at operation when, on palpation, an enlargement could not be determined or was considered questionable.

4. Kidneys otherwise normal are occasionally found so large that they simulate tumor on palpation. This hypertrophy may be found to occur without apparent reason or as the result of diminished function in the other kidney.

5. Low-lying large kidneys in thin patients may simulate moderate tumor enlargement.

Pain.—When it accompanies renal tumor, pain is caused either through tumor pressure on the surrounding nerve-trunks or by means of increased intrarenal tension resulting from interference with urinary drainage. When caused by tumor pressure the pain may be referred to various parts of the upper abdomen and back and consequently will often be misleading. Not infrequently will the pain radiation simulate that of gall-bladder disease; again, it may readily be mistaken for that of lumbago or muscular rheumatism. Abdominal pain of varying degree was complained of by sixty-eight, or 82 per cent., of the patients. It was given as a primary symptom by twenty-seven, or 32 per cent., and as the only symptom by fourteen, or 17 per cent. The pain was referred (a) to the affected kidney region in fifty cases, or 74 per cent.; (b) to both kidneys in four cases, or 6 per cent.; (c) across the back in eleven cases, or 17 per cent., and (d) it was diffuse and of no localizing value in eight, or 12 per cent. Of the cases of pain referred to the affected kidney, several occurred with hematuria only and in all probability were the results of blood-clots obstructing the ureter. Epigastric distress with more or less nausea was noted by eight, or 12 per cent., of the patients, and in four instances it was given as the predominant and only symptom.

Evidence Afforded by Urinalysis.—Other than blood in the urine (which has been discussed previously), pus may be found to a varying degree. Gross pus was found in five, or 6 per cent., of the cases, and microscopic pus in fifteen, or 18 per cent. Occasionally the pyuria becomes so marked that the condition may readily be confused with a pyonephrosis. Usually only a small amount of pus is found in the catheterized specimen and it may be the result either of secondary infection due to interference with the drainage of urine by the tumor or of tumor necrosis.

Circulatory Disturbance.—Evidence of circulatory disturbance is commonly found with the so-called hypernephroma or mesothelioma. In fact, this condition is observed so often as to indicate that toxins absorbed from the tumor may have a vasomotor dilating effect. Dilatation of the superficial blood-vessels is apparent in the face, the bladder, the scrotum and in hemorrhoids. The dilated superficial veins of the face not infrequently cause a flushed, congested appearance which is almost pathognomonic. Dilated veins in the scrotum or varicocele occur more commonly with hypernephroma than is generally recognized. A history of a varicocele of recent onset in a patient of 40 years or over renders an unidentified hematuria or tumor very suggestive of hypernephroma. Varicocele should always be searched for when renal tumor is suspected. Two of the patients at the Mayo clinic had previously been operated on elsewhere for varicocele. In the last thirty males the condition was found in nine, four on the right side and five on the left. In three instances a recent hydrocele was noted which might have been coincidental. Hemorrhoids of recent appearance were noted in five of the last thirty patients. Dilated blood-vessels in the bladder were noted on cystoscopic examination in four of the last fifty patients. Cardiac dilatation is a rather common late symptom and was found in ten of the twenty-one cases clinically considered inoperable. While dilatation of blood-vessels in the scrotum, bladder and rectum occasionally occurs with various abdominal tumors and may then be explained by mechanical pressure, the peculiar frequency with which they are found with renal tumors together with the venous dilatation in the upper extremities and the common cardiac insufficiency must be explained by causes other than mechanical.

DIFFERENTIAL DIAGNOSIS

The principal problems in differential diagnosis are identification of hematuria and upper abdominal tumor. The conditions which may most easily be confused with renal tumor are (1) "essential" and nephritic hematuria, (2) retroperitoneal tumor, (3) bilateral cystic kidney, and (4) closed pyonephrosis. Hematuria prolonged over a period of several weeks or months and occurring at long intervals is suggestive of "essential" or nephritic hematuria; when it continues but a day or two and reappears at short and irregular intervals it suggests renal tumor. With an otherwise symptomless hematuria, the question frequently arises whether or not surgical exploration is indicated. It has been our rule not to operate on cases of symptomless renal hematuria unless the loss of blood was so great as to interfere with the patient's duties. When, however, repeated severe hemorrhages occur in a patient of 40 years or over with loss in weight and strength, even though neither tumor nor pain exist, exploration may be justified. Illustrative of this point is a case which recently came under our observation. The patient, a man aged 50, complained of hematuria persisting for three months with loss of weight of 15 pounds. Tumor and pain were absent. Cystoscopic examination demonstrated the source of bleeding to be the right kidney but gave no other data. Exploration revealed a kidney normal in size and form but appearing moderately pale.

On section numerous small areas of pale tissue were visible. Microscopic frozen sections demonstrated tissue from these areas to be hypernephroma and the kidney was then removed. Although interstitial hypernephroma is extremely rare, renal tumor revealing itself clinically only by hematuria occurs often enough to warrant exploration in doubtful cases. Acute pain with essential or nephritic hematuria is exceptional, although it must be remembered that blood-clots occasionally cause acute colic.

Hematuria with bilateral cystic kidney may be confusing when the renal enlargement can be felt only on one side. Chronicity of symptoms and clinical evidence of renal insufficiency and bilateral tumor may call our attention to the cystic nature of the tumor. The pyelograph will identify the cystic nature of the tumor in over half the cases. As I have previously described, the pelvic outline of bilateral cystic kidney is characterized by flattening of the calices giving a general oval contour to the pelvis in contradistinction to the retracted calices of the malignant renal tumor. Occasionally, however, a retraction of the calices may also be found with the bilateral cystic kidney but it then is broad and open and not slit-like or narrow.

Tumor in organs adjacent to the kidney frequently cannot be identified even with the aid of all data obtainable through subjective symptoms, palpation, intestinal inflation and analysis of stool, urine and blood. Since about 20 per cent. of renal tumors will have no definite history of disease in the urinary tract and a negative urinalysis, it is very evident that they may easily be confused with tumor in the adjacent organs and vice versa. Cystoscopic data and particularly the pyelograph will identify or exclude renal involvement in about 75 per cent. of such tumors.

Closed pyonephrosis may be particularly confusing. The onset of a pyonephrosis may be most insidious, whether calcareous or tuberculous, and give the patient little or no subjective symptoms. The systemic toxemia as a result of such a pus-reservoir may give the appearance and systemic symptoms of malignancy. The tumor may feel as firm and irregular as a neoplasm. The cystoscopic examination discloses absence of secretion from that side and obstruction to the ureteral catheter at the renal pelvis, but the same condition may be found with malignant renal tumor. Data obtained by means of the pyelograph may be of considerable aid in such cases.

OTHER AIDS TO DIAGNOSIS

Cough.—A dry cough of comparatively recent origin, with negative chest findings, is suggestive of diaphragmatic irritation. While this may occur with various subdiaphragmatic tumors, it is found peculiarly frequent with renal tumor. Bronchial gland metastasis as a possible cause for cough was found in two cases. When this condition is suspected, the radiograph may show the metastasis providing the bronchial glands are large and favorably situated.

Sex.—Renal tumor evidently occurs more often in the male than in the female. It was found in fifty-one, or 62 per cent., of the males, and in thirty-two female patients.

Cystoscopic Data.—By means of the cystoscopic examination we can obtain data which, in most cases, will enable us definitely to determine the source of the hematuria, to ascertain the origin of pain and to identify an otherwise symptomless tumor. These data will be gained through (1) inspection, (2) the ureteral catheter, (3) estimation of renal function, and (4) pyelography.

Cystoscopic Inspection.—The cystoscopic examination of the bladder may reveal (1) dilatation of the veins of the bladder; (2) tumor tissue loose in the bladder or protruding from the ureter; (3) blood-clot in the ureteral meatus; (4) atrophy of the affected meatus; (5) marked comparative decrease in volume and force of secretion; (6) unilateral dark-colored secretions; (7) unilateral hematuria. Dilatation of the veins of the bladder is seen only occasionally with conditions other than renal tumors and occurs usually as a result of mechanical pressure from an adjacent tumor. When found with tumor in the upper abdomen, it is strongly indicative of renal tumor. The dilated veins are not necessarily confined to the area surrounding the ureteric orifice, but may be found over the base and walls, more often on the affected side. While the secretion from the affected kidney may appear entirely normal, it not infrequently will have a comparatively dark brownish color, and its volume and force may be much less than that from the other kidney.

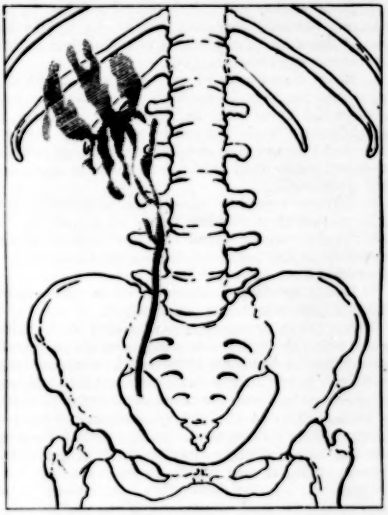

Fig. 1.—Typical "spider-leg" retraction of calices; note point of obstruction of catheter at level of fourth lumbar vertebra.

Ureteral Catheter.—The data obtained by means of the ureteral catheter are secured through evidence of obstruction and dilatation. Obstruction to the ureteral catheter may result from (1) invasion and partial or complete obliteration of the renopelvis or upper ureter by tumor tissue, or (2) from pressure on the ureter by surrounding tumor tissue, particularly when the tumor is large and involves the lower pole. Some evidence of dilatation of the pelvis as a result of tumor changes may be obtained through the discovery of residual urine in the pelvis. Similarity of pain caused by pelvic overdistention is not to be relied on.

Estimation of Renal Function.—Evidence obtained through chemical estimate of decrease in renal function

consequent to tumor must be considered with caution. With most renal tumors a quantitative functional estimate will not show a decrease sufficient for a definite estimate of disease. Although a considerable portion of the substance of the kidney may be invaded by tumor tissue, the remaining kidney will more often be found to secrete almost as great an amount as the entire kidney. When, however, the remaining renal tissue becomes involved in some secondary inflammatory process as evidenced by pyuria, microscopic or macroscopic, the functional capacity will be markedly reduced. Since particularly those tumors in which the urine is found normal are difficult of identification, functional tests will be found to be of diagnostic value in but a small proportion. In twenty cases of tumor with urine containing no pus, marked decrease in function was noted in but five. In these five cases, but a very small amount of secreting tissue was found remaining. On the other hand, it must be remembered that pressure of an adjacent tumor on the kidney will diminish its functional activity as measured by chemical tests. Various other circumstances may also cause a comparatively normal kidney temporarily to retard its secretory activity. Of the various functional tests, phenolsulphonephthalein will probably be found to be the most practical because of the simple technic involved and since it permits a comparatively accurate quantitative estimate.

Pyelography.—In over 75 per cent. of the kidneys operated on for malignant renal tumor the pelvis was found involved to a varying degree. Abnormality in pelvic outline consequent to such involvement can be demonstrated in the radiograph by injecting liquid solutions of silver colloid into the renal pelvis. In order to distinguish the normal from the abnormal, the outline must vary considerably. In the twenty-two cases with operation in which pyelography was employed, recognizable deformity was demonstrated in seventeen. The changes in the pelvic outline as seen in the radiograph will be found to be as follows:

1. Retraction of one or more calices well into the cortex giving a bizarre, "spider-leg-like" appearance (Fig. 1).

2. Partial obliteration of the pelvic lumen by invading renal tissue with remaining thin streaks (Fig. 2).

3. Irregular pelvic dilatation following tumor necrosis or secondary infection.

4. Retraction and consequent dilatation of the upper ureter by surrounding tumor.

5. Abnormal position of the renal pelvis so that its outline is found lying either extremely median or lateral (Figs. 3 and 4).

Needless to say that pyelography should not be employed except where other means of diagnosis fail to identify the tumor. While it will cause no permanent injury, it occasionally will be accompanied by considerable pain unless carefully employed. It will be found particularly valuable in identifying renal tumor not accompanied by urinary symptoms and in which urinalysis is found negative.

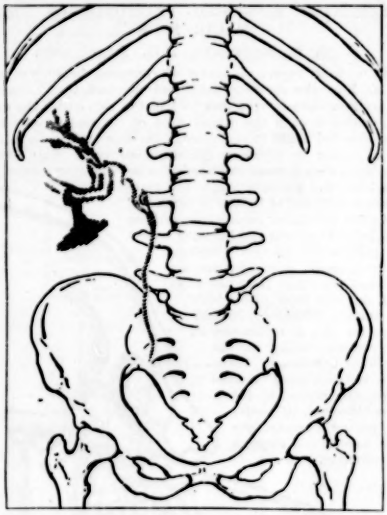

Fig. 2.—Typical retraction of calices into fine radiating streaks.

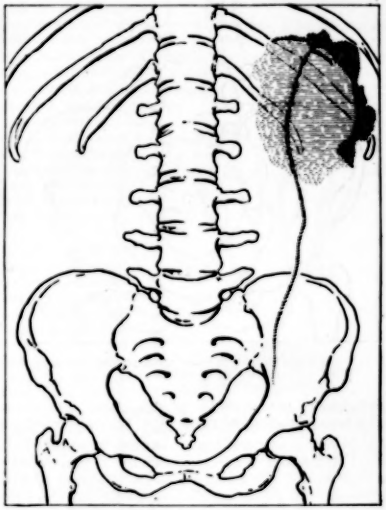

Fig. 3.—Flattening and lateral deviation of renal pelvis by median-lying tumor tissue.

OPERATIVE FINDINGS AND RESULTS

Inoperable Tumor.—Among the eighty-three patients operated on for malignant renal tumor, the surrounding tissues were found so involved as to render nephrectomy impossible in twenty-two. Among the twenty-two cases explored and found inoperable, the tumor was described as fixed in sixteen. Of the twenty-two patients, but fifteen could be traced and with two exceptions they were reported dead within a year after exploration. Our clinical records also show twenty-one patients in whom tumors in the zone of the kidney, hematuria and other evidences of malignancy made the clinical diagnosis of malignant renal tumor reasonably certain, but they were

considered inoperable. Thus we have a proportion of one case in five considered inoperable clinically. This large proportion is not surprising, since the average duration of symptoms of the patients operated on was 2.3 years, while with 31 per cent. it was 3 or more years. The symptoms which caused us to consider the patient's condition as inoperable were (1) fluid in the abdomen; (2) edema of the extremities; (3) extreme emaciation and weakness; (4) evidence of metastasis; (5) cardiac

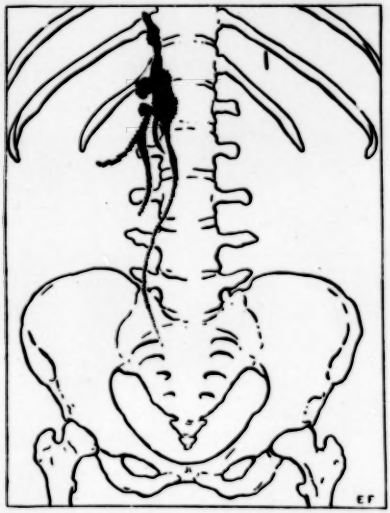

Fig. 4.—Flattening and median deviation of pelvis by laterally lying tumor, with retraction of calices.

insufficiency; (6) evidence of thrombosis. It must be remembered that metastases may be found when the renal tumor is so small that it cannot be palpated clinically. Microscopic sections of superficial tumors may be the first to call our attention to the existence of hypernephroma. In a case which came under our observation recently a metastatic tumor was found in the rectum.

Results of Nephrectomy.—Of the sixty-one patients in whom nephrectomy was done, seven, or 11 per cent., died in the hospital. Of the remaining patients, we were able to trace fifty-one. Of these, ten were operated on less than a year before, seventeen were alive more than one year, twelve after three years, four after five or more years, and one after eight years. Of the twenty-seven patients reported dead, nine died before one year after operation, two lived one year, four lived two years, and one lived three, four and five years after operation, respectively. Thus we have a three-year cure in fourteen, or 27 per cent., of the patients, and a five-year cure in five, or 10 per cent., of the patients. Of the patients that were reported alive three years or more the average length of symptoms noted prior to operation was 1.6 years. Of those who lived less than three years the average length of symptoms was 2.8 years. It is evident, therefore, that, as a general rule, the shorter the existence of symptoms prior to operation the better will be the prognosis. Furthermore, it is seen that results of nephrectomy for renal tumor compare favorably with operations for malignancy elsewhere in the abdomen.

In conclusion I wish to emphasize the importance of immediately ascertaining the source of every hematuria. Of the fifty-three patients operated on for malignant renal tumor who had a definite history of hematuria, but eighteen, or 34 per cent., had been advised to be examined for its source. Hematuria, particularly when so well marked as to color the urine, is always to be considered a sign of some grave condition in the urinary tract. In fact, it would be conservative to regard every case of hematuria as the result of a malignant process until it can be definitely proved otherwise. Renal tumor may lie dormant or grow insidiously over a period of years and by the time that hematuria, tumor or pain calls attention to its existence, it should receive immediate surgical attention.

REPLACING DEPRESSED FRACTURES OF THE MALAR BONE

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In a recent report of a case of depressed fracture of the malar bone the operator mentioned the fact that he made an incision three-fourths inch long in the skin under the eyelid, drilled through the orbital crest of the malar bone, and then inserted a silk thread through the hole thus made to use as a tractor in replacing the depressed bone. This seems improper, since it scars the face, gives but imperfect control of the bone, and makes a longer and more serious operation of it than is necessary.

Others in similar cases advise drilling the body of the bone and inserting screws or gimlets for traction purposes. Others, again, open the antrum through the canine fossa and press out the bone from within with a suitable elevator; Murphy uses for this a rubber-covered instrument resting on the teeth as a fulcrum. While the last-mentioned method gives fair control of the bone involved, it necessitates an opening into the mouth, and disposes to infection.

Replacing depressed fractures of the malar bone.

For elevating depressed fractures of the malar bone I have used an instrument always obtainable, the ordinary "cow-horn" forceps of the dentist, as shown in the illustration. The instrument is strong, and when properly used gives firm control of the bone better than the other methods. This is more readily appreciated when tried than would be believed from a mere description of its use. In addition to the sure control it leaves no scars, is quickly used, and does not enter through the mouth cavity.

The skin over the bone is suitably prepared; one point of the forceps is placed over the orbital ridge and the other just under the margin of the body of the bone at its outer side; a

little pressure penetrates the skin, and the points grasp the depressed bone with any degree of firmness advisable. Now the more or less impacted bone is disengaged from its bed, elevated to its proper place, and the forceps removed at once. No dressing is necessary, as the holes in the skin are mere pricks. The outline figure here shows crudely the forceps and the method of application.

A PORTABLE COMBINATION DOUCHE-CAN AND STERILIZER

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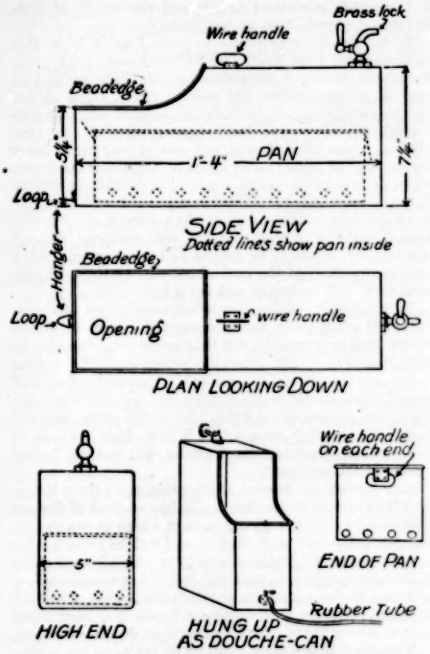
Believing that some of the readers of THE JOURNAL who are engaged in the practice of obstetrics may be interested in a combination douche-can and sterilizer, I herewith give a plan



Combination sterilizer and douche-can. The sterilizer is of copper polished outside and tinned inside. The can is of tinned copper. In the bottom of the pan and on the sides are three-eighth-inch perforations.

and description of one which to me is most satisfactory and practical.

It is easily carried in the ordinary 18- or 20-inch obstetric bag. Its width of 5 inches allows for ample room between the sides of the douche-can and the bag, where the bottles, pad, dressings and other obstetric necessities may be placed. In the douche-can may be placed the forceps, sutures, gloves and other instruments, so that all space in the bag is utilized.

The instruments, gloves, etc., are placed in the pan of the sterilizer and boiled, after which they are removed in the pan from the sterilizer. The brass cock, which is threaded and easily removed and which has been duly sterilized with the instruments, may be screwed into the sterilizer, and this in turn set on end or hung on a hook. The desired antiseptic being added to the boiled water, and a rubber tube, which also has been sterilized, being attached to the cock, makes ready a douching solution if needed.

I take no credit for originality in presenting this sterilizer and douche. It is nearly identical with Dr. Jellett's sterilizer and is in use in the extern department of the Rotunda Hospital, Dublin. I have simply changed the dimensions slightly and added handles, with a little different type of sterilizer pan.

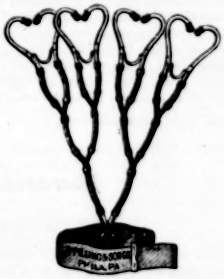
192 State Street.

A NEW INSTRUMENT FOR TEACHING THE AUSCULTATORY BLOOD-PRESSURE TECHNIC

FRANCIS ASHLEY FAUGHT, M.D., PHILADELPHIA

The accompanying illustration represents a new device to facilitate the teaching of blood-pressure readings by the auscultatory method. This method is now accepted as the most reliable and accurate clinical means of determining both the systolic and the diastolic readings, as by this method the results coincide with the figures obtained by the Erlanger graphic sphymomanometer.[1]

The chief drawback to the method has been the seeming difficulty which the average physician has in learning to perceive and interpret the sounds heard over the artery. The idea suggested itself that if the sphygmometroscope[2] was made into a multiple of four, whereby the sounds could be heard by more than one individual at the same time, it would overcome this difficulty and make it possible for any one familiar with the sounds heard during auscultatory blood-pressure observations to direct the attention of a small group of observers during the actual performance of the test. This has been done and the result has proved highly satisfactory.[3] No difficulty resulted from the distribution of the sound through a larger tubular system.



New instrument for teaching the auscultatory blood-pressure technic.

The device will be valuable particularly to the medical teacher, as it has been my experience that many students go through their clinical studies without ever actually hearing or seeing a demonstration. It is applicable also in demonstrating to medical societies or groups of medical men conditions involving marked variations in pressure.

5006 Spruce Street.

INFANTILE SCURVY IN WHICH SWOLLEN JOINTS RESEMBLED ACUTE ARTICULAR RHEUMATISM *

LOUIS FISCHER, M.D., NEW YORK

The importance of selecting the proper food for an infant prompts me to demonstrate this case, which I shall term faulty feeding. It is caused by feeding canned foods in which the antiscorbutic factor is wanting. Human breast-milk is a live food which is decidedly antiscorbutic; therefore no infant fed on the human breast acquires scurvy. If we would imitate Nature we must feed cow's milk in such a manner that it is

1. Warfield, L. M.: Interstate Med. Jour., 1912, xix, 856.
2. The sphygmometroscope is a Bowles' stethoscope modified and adapted to use over the bifurcation of the brachial artery.
3. Demonstrated before the Philadelphia Medical Literature Club, Nov. 22, 1912.

* Case presented at meeting of Atlantic County Medical Society, Oct. 1st, 1912.

not deprived of its enzymes. Boiling or prolonged steaming devitalizes the milk and is prone, if long continued, to develop scurvy. Canned or preserved milk is responsible for the damage done in the case reported.

The patient, Joe W., aged 13 months, was seen by me in consultation with Dr. S. Barbash at Atlantic City, Oct. 11, 1912. The infant was bottle-fed from birth. He was given condensed milk the first month and later received malted milk for a period of seven months. He also received cow's milk when 9 months old. The latter food disagreed. The infant had mucous stools which were streaked with blood. His general development was fair, although a bronzed condition of the skin existed. He had the first tooth when 4 months old, and was able to stand on his feet for several weeks, until four weeks ago, when it was noted that he suddenly refused to stand and that the slightest handling of the joints of his arms and legs gave him severe pains. A diagnosis of articular rheumatism was made.

There was marked tenderness over the joints. The head perspired freely when food was taken. The gums were soft and tender, and had a bluish-red ridge around the teeth. The weight of the child at the age of 13 months was 12½ pounds, which in itself is sufficient to show faulty metabolism. There was a marked rachitic rosary, and beaded ribs on both sides, so that the diagnosis of scurvy and rickets was warranted.

The sudden onset of symptoms made this case resemble a form of infantile paralysis. When these symptoms are associated with the bleeding gums, the purplish spongy swellings and the bluish-black subcutaneous hemorrhages visible on the inside of the cheek, the diagnosis of pseudoparalysis associated with scorbutus must be made. The etiologic factor is the absence of live fresh food. The treatment consists in giving orange juice, pineapple juice and expressed beef juice (raw muscle juice), raw white of eggs and very small doses of olive oil or cod-liver oil if the child can assimilate them.

162 West Eighty-Seventh Street.

Therapeutics

BAD MEDICATION

The following is a prescription written by a physician and compounded by a druggist and presumably the patient took it:

R

Strych. sulph.	gr. ss
Nitroglycerin	gr. 1/5
Digitalin	gr. 1/4
Caffeinae citrat.	gr. xv
Diuretin	℥ iss

M. et ft. caps. xxx.
Sig.: One every three hours.

In the first place, let us presume that this prescription was written for a patient who had cardiac weakness, probably edema or dropsy, who also was probably passing an insufficient amount of urine, and in whom the kidneys may have been actually diseased. While each ingredient may be defended, the combination is bad, and to decide exactly what would happen to a patient taking this prescription we must consider the physiologic activity of each drug. Presumably when a capsule is to be taken every three hours the patient received at least five doses during the twenty-four hours. He may have had more.

Each dose of the sulphate of strychnin was 1/60 grain, and in five doses he would have taken 1/12 grain. Each dose of the nitroglycerin was 1/150 grain, and in five doses he would have taken 1/30 grain. Each dose of the digitalin was 1/120 grain, and in five doses he would have taken 1/24 grain. Each dose of the citrated caffein was ½ grain, and in five doses he would have taken 2½ grains. Each dose of the diuretin (theobromin sodium salicylate) was 3 grains, and in five doses he would have taken 15 grains. Therefore, in considering what is happening in a patient, we must reckon with 1/12 grain of strychnin, 1/30 grain of nitroglycerin, 1/24 grain of digitalin, 2½ grains of citrated caffein, and 15 grains of diuretin.

The criticism of this prescription does not have to do with any one ingredient, nor with the dosage; it does have to do with the combination of these active drugs in which almost any one of them might act unpleasantly and would still be continued in order to give the action of the other ingredients. Also, it has to do with the entirely forgotten consideration of the length of time it takes each ingredient to act, and the length of time it takes for each dose to be excreted.

When strychnin sulphate is pushed as it is in this case, namely, 1/60 grain every three hours, 1/12 grain in fifteen hours, it should be given alone so that it may be stopped when the patient shows signs of too much strychnin. Strychnin stimulates the nervous system, stimulates the heart, causes more or less contraction of the blood-vessels, and may or may not increase the amount of urine; many times it diminishes the urine, when it is pushed; 1/12 grain of strychnin in fifteen hours is too much for almost any patient, and certainly should not be continued more than during one twenty-four hours at any such rate. It will hurt and damage a heart that needs to be helped and not injured. Also, such stimulation of the central nervous system will prevent sleep and necessary rest for a bad heart.

Nitroglycerin dilates the blood-vessels, and the dose of 1/150 grain every three hours, 1/30 grain in fifteen hours, may be advisable, but if it is advisable the strychnin stimulation, the digitalin action and the caffein action are probably not indicated. Vasocontractors and vasodilators should not be given at one and the same time; the patient needs either one or the other, and not both. The nitroglycerin action is immediate, as soon as the capsule dissolves; the digitalin will not act before twelve or fifteen hours.

The digitalin in dose of 1/120 grain every three hours, or 1/24 grain in fifteen hours, is a bad method of dosage. The dose of digitalis should be that which seems correct for the individual, and then should not be repeated for twelve hours. Digitalis in any form administered every three hours is never correct dosage. Disagreeable actions and cumulative effects are precipitated in such a method of administration. It is likely to do the very thing that evidently is not desired, namely, to decrease diuresis.

The citrated caffein in doses of ½ grain, or 2½ grains in fifteen hours, is small dosage. This drug will not only increase the heart action, contract the blood-vessels and perhaps cause diuresis, but will also stimulate the brain. It acts rather rapidly, but its action is prolonged, and ½ grain every three hours is not good dosage.

Diuretin in dosage of 3 grains is utterly insufficient. From 10 to 15 grains, given once or twice in twenty-four hours is much the better dosage, if diuresis is desired.

Too much cannot be said to discourage such a prescription as this. From any point of view it is unscientific, unphysiologic, and will do more harm than it can possibly do good. If a poor circulation requires treatment in the lines that the prescription suggests, vasocontractors and vasodilators should not be given coincidently; both cannot be indicated. Nitroglycerin, which acts rapidly and is eliminated rapidly, should not be

combined with digitalin, which acts slowly and is eliminated slowly, and a drug that is pushed to its physiologic limit as is the strychnin sulphate, 1/12 grain in fifteen hours, should not be combined with a drug that is given in very small dosage, such as the diuretin, 15 grains in fifteen hours.

It is not now the fault of the medical schools that "shotgun" prescriptions are written, and mixtures prescribed that contain enough ingredients to be medieval and ridiculous. The trouble lies largely in hospitals which advance every science except that of medication. Some of the best hospitals have formularies that they would dislike to see published in a first-class medical journal and ascribed to the source from which they emanated.

DISTURBANCES OF THE HEART

(Continued from page 205)

ANGINA PECTORIS

This is a name applied to pain in the region of the heart caused by a disturbance in the heart itself. Heart pains and heart aches from various kinds of insufficiency of the heart, or heart weakness, are not exactly what is understood by angina pectoris. It is largely an occurrence in patients beyond the age of 30, and most frequently occurs after 50, although attacks between the ages of 40 and 50 are becoming more frequent. It is a disturbance of the heart that most frequently attacks men, probably more than three-fourths of all cases of this disease occurring in men; in a large majority of the cases the coronary arteries are diseased.

Various pains that are not trûe angina pectoris occur in the left side of the chest; these have been called pseudo-anginas. They will be referred to later. True angina pectoris probably does not occur without some serious organic disease of the heart, mostly coronary sclerosis, fatty degeneration of the heart muscle, adherent pericarditis and perhaps some nerve degenerations. Various explanations of the heart pang have been suggested, such as a spasm or cramp of the heart muscle, sudden interference with the heart's action, as adherent pericarditis, a sudden dilatation of the heart, an interference with the usual stimuli from auricle to ventricle and therefore a very irregular contraction, a sudden obstruction to the blood-flow through a coronary artery, or a sudden spasm from irritation associated with some of the intercostal or more external chest muscles causing besides the pang a sense of constriction. Perhaps any one of these conditions may be a cause of the heart pang, and no one be the only cause.

In a true angina, death is frequently instantaneous. In other instances, death occurs in a few minutes or a few hours; or the patient's life may be prolonged for days, with more or less constant chest pains and frequent anginal attacks. Here there is a gradual failing of the heart muscle, with circulatory insufficiency, until the final heart pang occurs.

Anginal attacks before the age of 40, presumed, from a possible narrowing of the aortic valve, to be due to coronary sclerosis, are frequently due to a long previous attack of syphilis. In these cases active treatment of the supposed cause should be inaugurated, including perhaps an injection of the arsenic specific, and certainly a course of mercury and iodid, with all the general measures for managing and treating general arteriosclerosis, as previously described.

The pain of true angina pectoris generally starts in the region of the heart, radiates up around the left chest, into the shoulder, and often down the left arm. This is typical. It may not follow this course, however, but may be referred to the right chest, up into the neck, down toward the stomach, or toward the liver. The attack may be coincident with acute abdominal pain, almost simulating a gastric crisis of locomotor ataxia. There may also be coincident pains down the legs. It has been shown, as mentioned in another part of this series of articles, that disturbances in different parts of the heart or different parts of the aorta may cause pain and the pain be referred to different regions, depending on the part affected.

Instances occasionally occur in which a patient has an anginal attack, as denoted by facial anxiety, paleness, holding of the breath, and a slow weak pulse, without real pain. This has been called angina *sine dolore*. The patient has an appearance of anxious expectation, as though he feared something terrible was about to happen.

The position of the patient with true angina pectoris is characteristic. He stops still wherever he is, stands perfectly erect or bends his body backward, raises his chin, supports himself with one hand, leans against anything that is near him, and places his other hand over his heart, although he exercises very little pressure with this hand. The position assumed is that which will give the left chest the greatest unhampered expansion, as though he would relieve all pressure on the heart.

Besides the feeling of constriction, even to some spasm, perhaps, of the intercostal muscles, respiration is slowed or very shallow, because of the reflex desire of the patient not to add to the pain by breathing. The face is pale, the eyes show fear, and the whole expression is almost typical of cardiac anxiety. The patient feels that he is about to die. The pulse is generally slowed, may be irregular, and may not be felt at the wrist. The blood-pressure has been found at times to be increased. It could of course be taken only in those cases in which there were more or less continued anginal pains; the true typical acute angina pectoris attack is over, or the patient is dead, before any blood-pressure determination could be made. When there is more or less constant ache or frequent slight attacks of pain the blood-pressure may be raised by the causative disease, arteriosclerosis. During the acute attack with inefficient cardiac action and a diminished force and frequency of the beat the peripheral blood-pressure can only be lowered.

The duration of an acute attack, that is, the acute pain, is generally but a few seconds, sometimes a few minutes, and rarely has lasted for several hours. In the latter cases some obstruction to an artery has been found on autopsy, but not sufficient to stop the circulation at a vital point. Repeated slight attacks, more or less severe, may occur frequently throughout one or more days, or even perhaps a series of days, caused by the least exertion, even that of turning in bed.

While most cases of sudden death with cardiac pain are due to a local disease in or around the heart, it is quite probable that some disturbance in the medulla oblongata may cause acute inhibitory stoppage of the heart through the pneumogastric (vagi) nerves. The power of the pneumogastric reflex to inhibit the action of the heart is, of course, easily demonstrated physiologically. Clinically reflexes down these nerves interfering with the heart's action cause faintness and serious prostration, if not actual shock, and perhaps, at times, death. The most frequent cause of such a reflex is abdominal pain, perhaps due to some serious condition

in the stomach, to gastralgia, to an intestinal twist, to intussusception or other obstruction, or to hepatic or renal colic. A severe nerve injury anywhere may cause such a heart reflex. Hence serious nerve pain must always be stopped almost immediately, else cardiac and vasomotor shock will occur. In serious pain morphin becomes a life-saver.

While a number of causes of true cardiac pain may be eliminated by improvement in any loss of compensation, by improvement of the heart tone, by more or less recovery from myocardial or endocardial inflammation, and by the withdrawal of nicotin, which may cause cardiac pains, still, a true angina pectoris once occurring is likely to be caused by a progressive, incurable condition and the attacks will become more frequent until the final one. It is possible that a true angina may be due to a coronary artery disease or obstruction and that a collateral circulation may become established and repair the deficiency. While this probably can take place, occurrences must be rare.

Occasionally when the intense pain has ceased the patient may be nauseated and actually vomit, or he may soon pass a large amount of urine of low specific gravity, or have a copious movement of the bowels.

The first attack, and subsequent ones more and more readily, are precipitated by any exertion that increases the work of the heart, as walking up hill, walking against the wind, going up stairs, physical strains as suddenly getting out of bed, leaning over to put on the shoes, straining at stool, or even mental excitement. Exertion directly after eating a large meal is especially likely to precipitate an attack. Food that does not readily digest or food that causes gastric flatulence may precipitate attacks. Any indiscretion in the use of coffee, tea, alcohol or tobacco may be the cause of an attack.

For treatment of the immediate pain, if the physician arrives soon enough, anything may be given that quickly relieves local or general arterial spasm and spasm of the muscles. The moment that the heart and its arterioles relax, the attack is often over. The most quickly acting drug for this purpose is amyl nitrite, inhaled. If amyl nitrite is not at hand, or has been found previously to cause considerable disturbance of the head or a feeling of prolonged faintness, nitroglycerin is the next most rapidly acting drug. It may be given hypodermatically, or a tablet may be dissolved on the tongue. The amyl nitrite should be in the emergency case of the physician in the form of ampules, or may be carried by the patient after he has had one or more attacks. The ampules now come made of very thin glass with an absorbent and silk covering ready for crushing with the fingers, and are thus immediately ready for inhalation. One of these is generally all that it is necessary to use at any one time. Nitroglycerin, if given hypodermatically, should be in dose of 1/100 grain. If given by mouth the dose should be the same, repeated in ten minutes if the pain has not stopped.

Almost coincidently with the administration of nitroglycerin or the amyl nitrite a hypodermatic injection of 1/8 or 1/6 grain of morphin sulphate should be given without atropin, as full relaxation is desired without any stimulation of atropin.

Alcohol is also a valuable treatment of this pain, when the drugs mentioned are not at hand. The dose should be large; whisky or brandy are best, and should be administered in hot or at least warm water. The physiologic action of alcohol, which dulls or benumbs the nervous system and dilates the peripheral blood-vessels, is exactly in line with the clinical indications.

If a patient is home and at rest at the time of an attack, a hot-water bag but slightly filled, or a pad electrically heated may be placed over the heart sometimes with marked advantage and relief from pain. Occasionally even such gentle applications are not tolerated.

After the attack is over absolute rest for some hours, at least, is positively necessary. If the attack was severe, the patient should rest several days, as there seems to be a great tendency for such attacks to come in groups, the cause being acutely present for at least some time. But little food should be given; nothing very hot or very cold, and no large amount of liquids; gentle catharsis may be induced on the following day, if deemed advisable; no stimulating drugs should be administered, and nothing that would raise the blood-pressure.

The question often arises as to whether the patient shall be told of the seriousness of his condition. It is hardly wise to withhold this knowledge from him, and generally is not necessary. The ordinary alert patient knows how serious the condition is by his own feelings, and will even reprove or joke with his physician for minimizing the danger. It is best that the whole subject be discussed carefully with him and his life regulated and ordered, and emergency drugs prepared and given him with proper instructions to the family, so that he may possibly prevent other attacks, and, if they occur, may have the best immediate treatment.

The acute symptoms being over, a careful analysis of the probable cause of the anginal attack should be made. If it is a general sclerosis, the treatment should be directed to that condition. If it is a myocarditis, a fatty degeneration of the heart or a fatty heart, this should be properly treated as previously described. If it is due to a toxemia from intestinal disturbance, that may readily be remedied. If due to nicotin, it need not again occur from that reason, and perhaps the damage caused by the nicotin may be removed. Any organic kidney trouble must, of course, be managed according to its seriousness, and if there is hypertension without any serious lesion, the treatment should be directed toward its relief. The treatment for hypertension will be described later.

PSEUDO-ANGINA

While this name is more or less unfortunate, it has long been in vogue as a designation for pains and disturbances referred by a patient to his heart. Therefore with the distinct understanding that if the diagnosis is correct the name is a misnomer, it may be allowable to discuss under this heading some of the attacks that may simulate an angina and must be separated from a true angina.

To decide whether pain in the region of the heart or irregularity of its action is due to organic disease, to functional disturbance, or to referred causes is often extremely difficult. Some of the most disturbing sensations in the region of the heart are not due to any organic trouble, and yet the patient is fearful that such sensations mean some kind of heart disease, and therefore becomes exceedingly anxious and watches and mentally records every sensation in the left chest. This is unfortunate, as the patient may learn to note, if he does not actually count, his heart-beats, while normally he should sense nothing of his heart's activity. On the other hand, as just stated, it may be almost impossible to decide that this disturbance of the heart is not due to an organic cause, but is entirely functional, or due to some extraneous reason.

It seems justifiable in every case of irregular heart action to assure the patient that the condition can be improved, which in most instances is the truth. There can be no question of such urgent assurance, if it is decided that the cause is not in the heart itself, or at least is not organic. Irregularities in the heart's action will be discussed later. At this time discussion will be limited to pain which is not true angina pectoris, but which is in the region of the heart or is referred to it.

Intercostal neuralgia is more likely to occur on the left side of the chest than on the right. This is particularly unfortunate, as tending to cause these pains to be referred to the heart. The localization of tender spots along the course of a nerve with demonstration of these to the patient and the diagnosis stated is all the assurance that he requires.

Careful questioning, and if necessary scientific examination of the stomach, may show that the patient has hyperchlorhydria, ulcer of the stomach or duodenum, dilatation of the stomach, or some growth in the stomach as a cause for the pain referred to the region of the heart. Gall-stones in the gall-bladder may also give such referred pains. Other lesions in the abdomen may cause pain referred to the cardiac region. Not only will the demonstration of these causes and their treatment assure the patient that he has not neuralgia of his heart, but also, if curable, the cause of the pain may be removed.

Dry pleurisy of the left chest is not an infrequent cause of these pains, and of course serious disease of the lungs, as tuberculosis, unresolved pneumonia, pleuritic adhesions, emphysema and tumor growths may all be the cause of a referred cardiac pain, the heart being disturbed secondarily.

A stomach cramp is a not infrequent cause of serious pain referred to the heart, and the rare condition of cardiospasm must also be remembered as a cause of pseudo-angina. In other words, the interpretation of these pseudo-anginas means a careful diagnosis of the condition, and as previously stated, not only must the above-named causes be excluded, but also the reverse must be remembered: that many disturbances treated as other conditions really are due to cardiac weakness.

The diagnosis of a real angina pectoris from a false angina may not be difficult. A real angina generally occurs after exertion of some kind, be that exertion ever so slight. False angina may occur at any minute with or without exertion. Pain referred to the heart which awakens a patient at night is not likely to be a true angina; nervous patients are prone to have such night attacks of cardiac disturbance of various kinds. A true angina causes the patient's face to look anxious and pale, with the breathing repressed. A false angina shows no such paleness, allows deep breathing, crying and lamenting, and allows the patient to move about in bed, or about the room. The true angina makes the patient absolutely still and quiet: he hardly dares to speak or tell what he is feeling and fearing. True angina is of course much more frequent in older persons, while false anginas occur in the young, and especially in the neurotic. With all the other manifestations of hysteria, palpitation and cardiac pain are often symptoms.

It should not be decided, however apparently self-evident, that a referred pain is not due to cardiac lesion until a careful examination of the patient has been made. Real cardiac disturbance can of course occur at any time in a neurotic or hysteric patient, and there should be no mistakes of omission from carelessness or neglect on the part of the physician.

Other frequent causes of more or less disturbance of the heart's action, often accompanied by pain, are over-exertion, worry and mental anxiety, and intestinal toxemias due to too much protein or disturbed protein digestion. Frequent causes are tobacco, and the overuse of tea and coffee. Many a patient's pseudo-anginas are corrected by stopping tea and coffee. The effects of caffein and tobacco on the heart will be considered later when toxic disturbances are under discussion.

The above-mentioned causes of pseudo-anginas have only to be named to indicate the treatment that will prevent the pain attacks. At times, the cause being intangible, it may be necessary to change the whole life and metabolism of the patient, as so often necessary in hysteria, neurasthenia, gout, intestinal fermentation and kidney inefficiency. Besides a rearrangement of the diet and measures for causing proper activity of the bowels, massage, exercise and hydrotherapy should be utilized toward the end of improving the nutrition of every part.

TREATMENT OF PSEUDO-ANGINAS

The treatment of these pseudo-anginas depends, of course, on the diagnosis of the cause, and the cause should be eliminated or modified. If the heart shows real disturbance from this reflex cause, the treatment aimed toward it depends on whether the heart action is weak or strong and the circulation poor or good. If the circulation is poor, digitalis in small doses may be needed, either 5 drops of an active tincture twice a day, or 8 or 10 drops once a day. If digitalis is not indicated, strophanthus sometimes is valuable. While strophanthus has been shown not to be a real cardiac tonic like digitalis, still there seems to be a nervous sedative action when it is given by the mouth, and it often does good in these cases. The dose is 5 drops of the tincture, in water, three times a day, after meals. Strychnin in small doses may be needed, but in these patients, who are generally nervous, it is usually better not to give it.

One of the best sedatives to a heart that is irregular in its action and not acting strongly is lime; a good way to administer it is in the form of calcium lactate and the dose is 0.3 gm. (5 grains), in powder or capsule, three times a day, after meals.

If the circulation is good and the heart is strong, and yet these irregular pains and irregular contractions occur, the bromids act favorably and successfully. This is probably on account of their ability to quiet the central nervous system, to quiet and soothe the irritability of the heart, and to relax the peripheral blood-vessels. The dose should be from 0.5 to 1 gm. (7½ to 15 grains), in water, three times a day, after meals. It is not necessary or advisable to continue the bromid very long. Whatever general tonic or eliminative treatment the patient requires should be given. The value of hydrotherapy, massage and graded exercise should not be forgotten.

(To be continued)

The Sociologic Phases of Psychiatry.—A phase of the social side of medicine is discussed by H. W. Gruhle of Heidelberg in the November number of the *Zeitschrift für die gesamte Neurologie und Psychiatrie*. Gruhle calls attention to the social phases of the work of the physician in the public hospitals for the insane, not only in the care of the patients themselves, but in learning their family histories and arousing public interest in their families, particularly the children left without parents. The psychiatrist also has an opportunity to protect the community from dangerous cranks and psychopaths, and to contribute to public education regarding the inheritance and prevention of insanity and feeble-mindedness.

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SATURDAY, JANUARY 25, 1913

SUNLIGHT IN THE TROPICS

In last week's issue it was pointed out that the ability to withstand a tropical climate such as is exhibited in our insular possessions in the Philippines is not solely a question of heat alone or of specific effects of the rays in the violet and ultraviolet portions of the spectrum. The latter may cause sunburn and subsequent excessive pigmentation; but white clothes are a sufficient protection against sunburn so that skin color alone can scarcely be a very important factor in determining adaptability to climate. Chamberlain[1] has carefully compared the relative resistance to the Philippine climate of blond and brunette types of soldiers and reached the general conclusion that there is no essential difference in the ability of the two to withstand it. Dispassionate judgment like this must weigh heavily against the heralded unfitness of the least pigmented of the white race to do duty in the tropics. There is no advantage in specially colored underclothing; the lighter and whiter it is the better it is adapted to protect against the sunlight.[2]

The fundamental requirement in all hot countries is the capacity of lowering the temperature of the individual. Aside from shade, which he may seek or provide, protection is brought about by the evaporation of perspiration, and the better the facilities for this the better off will the individual be. Relative humidity therefore plays a significant part in determining resistance to the climate; and the depressing effect of a "moist" hot atmosphere is well appreciated. Dr. Freer[3] has pointed out that certain untoward effects attributed to the tropical sun are caused by the evenness of the climate rather than by the differences of insolation at any one time. We are accustomed to severe contrasts in the temperate zones; but the absence of winters and the monotony in the tropics doubtless have an effect. There are places where the radiation from the earth at night is so great that no relief is experienced from excessive heat. Such surroundings may preclude the possibility of persons living in health, if they are unaccustomed to the conditions. In the Philippines, we are told, the nights are rarely too hot for comfort and they may even be quite cool.

In discussing life in the tropics, then, we must bear in mind that there are many other factors beside sunlight which go to make up the climate there. Duration of sunshine, clouds, rainfall, winds and humidity all affect the temperature of the air; although the character of the insolation takes a first place. Unfavorable or disagreeable as these may be, it would still seem legitimate, according to Dr. Freer, to draw the conclusion that a climate such as we have in the Philippines, surrounded by a sea which modifies the extremes of temperature and where there is such a large proportion of cloud, is not by any means deleterious to the white man if he takes ordinary precautions which are not so elaborate as those he would take in a northern climate to keep out the cold. The individual needs only to seek the shade to avoid harm from even the greatest insolation.

Inasmuch as perspiration is a very important factor in keeping man comfortable and normal, particularly under conditions of exercise in hot weather, much water is lost from the body in the tropics. This feature may account for some of the discomfort or dangers when drinking-water is not furnished in sufficient abundance. Dr. Freer insists that two canteenfuls per man are not sufficient for marching soldiers, so that the temptation to drink any available water becomes great. Sickness caused by infection from such sources might readily be attributed to the sun as a predisposing factor.

1. Chamberlain: Philippine Jour. Sc., B, 1911, vi, 42. Complexion and Health in the Tropics, editorial, THE JOURNAL A. M. A., June 1, 1912, p. 1688.
2. Compare Phalen: Philippine Jour. Sc., B, 1910, v, 525; also see The Use of Orange-Red Underclothing in the Tropics, editorial, THE JOURNAL A. M. A., May 20, 1911, p. 1484; Orange-Red Clothing No Improvement, editorial, ibid., May 28, 1910, p. 1793.
3. Freer, Paul C.: Philippine Jour. Sc., B; Philippine Jour. Trop. Med., 1912, vii, 23

THE HYDROCHLORIC ACID OF THE GASTRIC SECRETION

The origin of the hydrochloric acid of the gastric juice is a question of more than ordinary interest, because the production of a free mineral acid by a living tissue is not a common biologic manifestation. Few instances of similar phenomena are known, so that a variety of chemical and morphologic problems force themselves on us in considering how a practically neutral tissue, bathed in practically neutral nutrient fluids, can liberate a product as specific and active as the hydrochloric acid of the stomach secretion. Regarding the immediate antecedent of the acid there can, of course, be little doubt. Chlorids must in ultimate analysis be the mother substance of this particular mineral acid. But where does the transformation take place, and how is the acid secretion discharged into the lumen of the glands or stomach without damage to or alteration of the tissues with which it comes into contact? Do the glands manufacture the acid as such, or is it produced by particular specialized cells in the glands? Is the product of cellular activity the free acid itself or some intermediary substance from which acid is developed or liberated on the surface of the mucosa? These are some of the

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questions which are raised by any consideration of the production of the gastric juice.

It is commonly taught at present that free hydrochloric acid is formed in the parietal cells of the gastric glands. The earlier investigators were able to associate other secretory functions of the gastric mucosa definitely with other cells; so that the parietal cells were left, by a process of exclusion, for the formation of the acid component of the secretion. Microchemical evidence gathered more recently seemed to strengthen this somewhat indirect evidence by demonstrating that chlorids — the obvious precursors of the hydrochloric acid — are more abundant in the parietal cells than in other parts of the glands. Still further evidence was sought by injecting into animals salts of iron which will form the familiar Prussian blue in the presence of free mineral acid.[1] The microchemical pictures thus obtained have led some to regard these experiments as corroboratory of the localization of the acid secretory functions in the parietal cells. Miss Fitzgerald is the latest investigator to reach the conclusion, by the method referred to, that the occurrence of the Prussian blue reaction in the canaliculi of the parietal cells of an animal suitably injected affords final evidence of the presence of free acid within these structures.

Renewed study of the subject in the laboratories at the University of Chicago has led Drs. Harvey and Bensley[2] to question the previous statements. They believe that only non-acid substances are formed by the glands. Careful experimental microchemical observations with the aid of dyes of the cyanamin series justify them in asserting that the contents of the gland cells and lumina are not acid, but neutral or alkaline, even when hydrochloric acid is being actively formed on the surface of the mucous membrane. They believe that the secretion formed in the glands contains a relatively high content of solids, and that the bulk of the water found in the gastric secretion is added at the level of the glandular foveolae. It is probably in the latter and also on the free surface of the mucous membrane that the hydrochloric acid is set free. The product of the parietal cells is asserted to be alkaline while in the cells themselves; it may be secreted in the form of the chlorid of an organic base from which the acid is subsequently liberated.

Harvey and Bensley point out that since the contents of the gastric glands proper when in a state of normal activity are not acid in reaction, and may even be alkaline, it follows that the ferment of the same secretion in the gland lumen is probably not in an active form, since, as is well known, pepsin is destroyed by alkalies while its antecedent pepsinogen is not so affected. Hence the failure of the secretion to attack the cells themselves requires no further explanation in the case of the gastric glands than in the case of the pancreas. In neither case does the activated ferment come into immediate contact with the parenchyma cells. The investigators add that it is pertinent to inquire whether under any conditions the secretion within the gland may become acid in reaction; for in this event it is probable that the ferment would be activated and, as happens under similar conditions in the pancreas, the adjacent parenchyma cells would be attacked.

1. Compare Fitzgerald, M. P.: The Origin of the Hydrochloric Acid in the Gastric Tubules, Proc. Roy. Soc., London (B), 1910, lxxxiii, 56.

2. Harvey, B. C. H., and Bensley, R. R.: Formation of Hydrochloric Acid in the Foveolae and on the Surface of the Gastric Mucous Membrane, and the Non-Acid Character of the Contents of Gland Cells and Lumina, Biol. Bull., 1912, xxiii, 225.

MARION SIMS AND THE SOUTHERN GYNECOLOGISTS

On this, the centenary anniversary of the birth of James Marion Sims (January 25), special interest attaches to the work of his Southern colleagues who did so much for the foundation of operative gynecology, a branch of medicine which is usually acknowledged to be of American origin. Sims himself was the founder of plastic surgery of the uterus (1861-1866), first described vaginismus (1861) and put cholecystotomy on a permanent basis (1878). His introduction of the silver wire suture, the Sims position, the Sims speculum and a new catheter for drainage practically made the operation of vesicovaginal fistula what it is to-day, and his triumphal progress through England, France and Germany resembled Lord Lister's in regard to the rapidity with which his ideas were assimilated.

Far back in the eighteenth century William Baynham of Virginia performed two successful operations for extra-uterine pregnancy (1791-1799), and John King of South Carolina wrote the first book on the subject (1817). While Ephraim McDowell of Virginia may not have been the first one to perform oophorectomy, his statistics of eight successful cases out of thirteen justify his title of "the father of ovariotomy," for they established the operation as a recognized surgical procedure, and it was thereafter rapidly extended by the Atlees in America, Clay in Manchester, England, and Nélaton and Kœberle in France. William Gibson of Maryland performed three successful cesarean sections on the same patient (1835-1837). John Peter Mettauer in 1838 recorded perhaps the first successful operation for vesicovaginal fistula. In 1844 Josiah Clark Nott, a South Carolinian, performed the first operation for neuralgia of the coccyx to which the name "coccygodinia" was given. Thomas Addis Emmet of Charlottesville, Va., a pupil and associate of Sims in New York, carried out the latter's ideas and became a great master in the plastic surgery of the vagina, bladder and perineum. In Theodore Gaillard Thomas we have another eminent South Carolinian. He substituted gastro-elytrotomy for cesarean section (1870), and was the first to perform vaginal ovariotomy (1870). His practical "Treatise on Diseases of Women" (1868) was a standard authority in its day and has been translated into many languages. Over 60,000 copies are said to have been sold. Robert

Battey of Georgia, a surgeon in the Confederate Army, was the first to perform normal oophorectomy or Battey's operation (1872), the removal of both ovaries in neurotic women. From what is known of the effect of the ovarian secretions on the female organism, Battey's operation is now physiologically justified, Tait's idea (1879) being to remove the adnexa because they were diseased. Nathan Bozeman of Alabama introduced (1878) an important operation for complications in various female fistulas, with unique methods of drainage. Though using the clamp-suture of Marion Sims in vesicovaginal fistula, he discovered that a button might be combined with older methods, and the button-suture was the happy outcome, resulting in 100 per cent. of successful cases, instead of 25. Prevost of Donaldsonville, La., performed the first cesarean section in America (1830), losing but one mother and operating twice on the same patient. Joseph Price of Rockingham County, Va., who died in 1911, established himself in Philadelphia, where he entered on his successful career and became the militant advocate of the new surgery. He exerted great influence on the development of modern pelvic and abdominal surgery. He found the surgical world rebellious against his progressive ideas, but with Spartan courage, matchless skill and judgment as an operator, he forged ahead and did much in regard to pelvic abscess, ectopic pregnancy and puerperal peritonitis (1889-1890). As McMurtry says, "He stripped from surgery all complicated paraphernalia and made its technic simple and thorough. . . . Every prominent surgeon in this country to-day demonstrates in his methods the impress of this master surgeon."

We congratulate our professional brethren of the South on this distinguished line of workers in one of the most important branches of medical science.

MEDICAL AMERICA SEEN WITH FOREIGN EYES

Sane, unbiased criticism must ever rank among the helpful influences that make for progress. The debt that American medicine owes to Great Britain, to France and to Germany, each of which has in turn furnished instruction and inspiration to eager students and travelers from our shores, has often been referred to in public with becoming emphasis and gratitude. Eminent German physicians and investigators have published their impressions of the status of medical science in America with an impartial insight that has dictated many just comments on our shortcomings. We recall a particularly trenchant commentary of a few years ago by Prof. F. von Müller of Munich. Warm commendation and friendly adverse criticism were mingled in becoming fashion.

Thoughtful Americans do not complain of the shafts of criticism or even of ridicule from which they have suffered, so long as the aim was true and the mark a fair one. All these have helped us in our struggles toward better things in medical education and practice. The day has arrived when America can regard with pride her Nobel prize-winners and her beginnings of scientific achievements. If Americans have any complaint to make against European critics it is against those who are either ignorant or incompetent with respect to matters which they presume to criticize. Perhaps we have greatest cause of complaint, indeed, against those writers who, without criticizing at all, calmly ignore American scientific achievements even in those cases in which it has a prior claim to recognition. Fortunately, our critics are sometimes kind enough to provide us with matter for amusement, even when they do no more for us.

These reflections are prompted by a recent article,[1] purporting to give a view of medical America, which might seem, *mutatis mutandis*, to have been written by a Cook's tourist did we not know its author to be a prominent German physician (Dr. Jaffé of Hamburg, a member of the *ärztliche Studienreise*). Dare we assume, indeed, that the stay-at-home German public shares Dr. Jaffé's naive surprise at the exceptional bathing facilities — and towels and soap! — in our hotels and his childlike relish for the most insignificant incidents in his journey into a land of barbarians and wonders? His is the story of a sight-seeing trip in which 250 physicians from all the walks of medical life were literally hustled about from East to West, North and South in a few short days. To bear this in mind will help us to endure with patience Dr. Jaffé's strictures on our customs and institutions and perchance to overlook what might otherwise appear to be a certain provincial tendency to dwell on non-essentials — to fail to see the forest for the trees.

And what of our things medical? The hospitals receive a passing mention which shows only the most superficial appreciation of the organization of their work in our cities. At one of the clinics at the Mercy Hospital in Chicago, rectal infusion of salt solution seems to have attracted our visitor's notice. In a certain clinic the applause of the listeners mystifies him. Can it be that he has never heard the pandemonium in a German lecture-room?

True to the attitude prevalent in certain quarters, our German visitor does not fail to emphasize the material side of our scientific life. Much as the traditional American from Punkin Hollow lingers before the masterpieces of the Uffizzi or the Louvre merely that he may marvel at their value in cold cash, so our critic mentions the Rockefeller Institute only in terms of the cost of the building and the wealth of the donor. Are the splendid contributions of this great scientific center unknown to the traveler who saw the edifice? Or had the joys of the banquet and the glimmer of the New World deadened an interest in incidental things like the by-ways of research? The International Congress on Hygiene and Demography receives its due share of criticism, some

1. Jaffé, K.: Reiseeindrücke und Erinnerungen von der ärztlichen Studienreise, München. med. Wchnschr., Nov. 5, 1912, p. 2463.

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of which, be it frankly admitted, was entirely deserved. The spirit of advertising was everywhere too prominent. The climax appears to have been reached for our critic in the fact that the secretary could not even speak German.

If we were hypercritical we might dilate on one phase of Dr. Jaffé's article. In the course of his rather querulous chatter about America and things American, he finds time and space to give a fulsome testimonial to a "patent medicine" exploited as a preventive and cure of seasickness. He dilates on the wonderful results to be obtained by taking this nostrum and refers to it in such glowing terms that it became necessary for the *Münchener medizinische Wochenschrift* — in which his article appeared — to publish a brief note in a subsequent issue, giving its readers such information as it had regarding the preparation. There are doubtless many things about the American medical profession to criticize, but it is comparatively free to-day from the blight of testimonial-giving of this kind. Whatever in truth may be said detrimental to the profession in this country, it would at least be impossible to find any American physician, of presumably high standing, shamelessly boosting a "patent medicine" humbug in a scientific publication.

FUNCTIONAL DIAGNOSIS—THE LIVER

The search for specific methods of functional diagnosis to apply in the case of organs whose activities are not directly controllable by the physical methods in vogue in other instances, is both rational and commendable. It is as a rule fully as important to ascertain whether the liver or pancreas or pituitary gland is performing its physiologic duties as it is to know the working capacity of the heart or the conductivity of some nervous tract. In the latter cases, however, we are dealing with physical manifestations for which well-tested methods of detection and measurement have already been devised; but in the other category, in which more clearly chemical reactivity is the conspicuous feature, diagnostic skill has not yet reached so high a stage of perfection.

The most obvious scheme for the diagnosis of glandular functions, and the one commonly followed, has been to give the organ involved a characteristic physiologic duty to perform and to note the success with which this task is accomplished. The test meal in relation to gastric disorder is a case in point. In other instances it has been less easy to hit on a manifestation or function which was sufficiently characteristic to be specific in the individual cases. Practically all of the attempts in this field, however, have overlooked a fundamental principle which greatly diminishes the probability of establishing entirely successful procedures of functional diagnosis along the lines here outlined. It rarely happens that all of the cells of a gland, for example, are incapacitated from fulfilling the activities for which they are intended. The result is that in the majority of cases sufficient normally functioning cells persist to enable an organ like the liver to maintain its metabolic processes in approximate equilibrium. There are numerous cases in which, according to histologic examination, the organ may be profoundly altered in structure and a large proportion of its cells become apparently inefficient; yet the small intact residual group seems to suffice to conduct the operations which are ordinarily entailed on a much larger one. Extensive liver necroses have been produced by various methods without pronounced upsets in the character of the metabolism,[1] and this fact constitutes one of the best evidences of the "factors of safety" or protective adaptations in the body.

The liver is so prominently concerned in the metabolism of carbohydrates as exemplified in its glycogenic functions that this feature was early kept in mind in relation to the diagnosis of hepatic disease.[2] One might naturally expect sugar to escape storage, with a resultant hyperglycemia and glycosuria in derangements of the liver; yet this is among the rarities. Strauss took a step in advance by studying the tolerance to levulose, a different carbohydrate from that commonly considered as the immediate forerunner of glycogen. The levulose test for hepatic insufficiency, in which 100 gm. of fruit-sugar are fed on an empty stomach and followed by a search for unassimilated sugar in the urine, has now been applied by numerous clinical observers with the general result that the tolerance to this sugar is found decreased in a large percentage of the liver diseases. It happens occasionally, however, that apparently healthy persons excrete some levulose under the commonly adopted test conditions; and on the whole the findings, at least in a qualitative way, are too uncertain to be regarded as strictly pathognomonic. Possibly the "test" could be improved by modifying it into some more quantitative measure of hepatic efficiency.

Further progress seemed at hand when Bauer substituted the carbohydrate galactose for use in these tests.[3] In this case 40 gm. of the sugar are fed before meals in the morning. It appeared from the earlier work as if alimentary galactosuria would permit a more specific differentiation of hepatic disease than the earlier investigated levulosuria. Drs. Reiss and Jehn have contributed an elaborate study of this question from the Municipal Hospital in Frankfort-on-the-Main.[4] They find that in normal persons the dose of galactose mentioned (40 gm.) is not attended with any excretion of carbohydrate, or at least not more than traces, the limit for which they put at 2 gm. In conformity with the conjectures which we have expressed above, the German investigators observed marked alimentary galactosuria only in those cases in which it is logical to assume that

1. Compare Jackson and Pearce: Jour. Exper. Med., 1907, ix, 552. Underhill and Kleiner: Jour. Biol. Chem., 1908, iv, 165.
2. For the literature on the subject see Hohlweg: Deutsch. Arch. f. klin. Med., 1909, xcvii, 443.
3. Bauer: Deutsch. med. Wchnschr., 1908, No. 35, p. 1505.
4. Reiss, Emil, and Jehn, Wilhelm: Alimentäre Galaktosurie bei Leberkrankheiten, Deutsch. Arch. f. klin. Med., 1912, cviii, 187.

the entire liver tissue has simultaneously been affected by the pathologic process. This need not be severe or permanent; but it must result in an impairment of every cell, as it were. Hence it is in the acute infections and intoxications characterized by catarrhal jaundice that a pronounced response to the galactosuria test is observed. In the absence of febrile complications a decided reaction of this sort is strongly indicative of the affection referred to. Apparently the usual cellular capacities are markedly interfered with. On the other hand, far more pronounced pathologic inroads on the liver which may even leave permanent lesions do not necessarily or commonly respond in this positive way to the galactose functional test. In cirrhosis, for example, with conspicuous morphologic alterations of the parenchyma of the liver, there are always functionally competent residual cell groups, so that the usual work of the liver can still be accomplished with considerable efficiency. The galactosuria is slight, at most. In carcinoma, cholelithiasis and portal obstruction, it may be missed entirely.

Summarizing, it appears that an acute toxic damage to the entire liver decreases its functional capacity as measured by the assimilation of galactose. In partial destruction of liver tissue or in certain forms of chronic hepatic disease the defective functioning is largely concealed by the efficiency which residual or replaced cellular masses may exhibit. In view of this the findings on such a test as that outlined must be accepted with reserve and interpreted with extreme caution whenever questions of careful diagnosis are involved.

THE COMPOSITION OF THE AIR WE BREATHE

Man is far more dependent on the atmosphere than on any other factor in his environment. Food can be dispensed with for considerable periods, reckoned by days or weeks; thirst can be suffered for briefer periods without untoward results; but the lack of oxygen for respiration manifests itself in the form of severe pathologic consequences in a very few minutes. It is therefore highly important that we should have adequate information regarding the composition of the atmosphere and the changes to which it is subject under the widest variety of modifying circumstances.

In a roughly approximate way it is customary to say that the air consists of four-fifths nitrogen and one-fifth oxygen. How constant are these proportions at different times and in different places? Minor variations have in the past been charged to different factors and influences, such as the differences in the regions of the atmosphere.[1] The upper regions have been supposed to show a small deficiency in oxygen as compared with air from lower levels. Severe depressions of temperature, the so-called "cold waves," supposed to be connected with descents of air from great elevations, have been said to be attended with a small relative deficiency in oxygen in the atmosphere belonging to the downward currents. Alterations in climatic conditions have been ascribed by Arrhenius to relatively small changes in the carbon-dioxid content of the air.

There are a great many further factors which might be assumed to affect in some way the composition of the atmosphere. Oxygen is constantly being abstracted by living animals and carbon dioxid contributed by them. Reverse processes are attributable to plant forms. To these natural ways which may serve to alter the composition of the air must be added the possible effects of fuel-consuming factories and similar agencies which tend to diminish oxygen and produce carbon dioxid. The question is at once raised whether these are sufficient to modify in any detectable degree the atmosphere in their neighborhood. In the case of subways and tunnels, mines and houses, in which the tendency to diffusion and equalization is interfered with and the conditions approach those of a closed space, the importance of having some standard or normal composition for comparison becomes apparent.

The Boston Nutrition Laboratory of the Carnegie Institution of Washington has undertaken a most painstaking series of investigations bearing on this subject. They include an examination of the comparative oxygen-content of uncontaminated outdoor air under all conditions as to wind direction and strength, temperature, cloud formation, barometer and weather. In addition samples of air were collected on the Atlantic Ocean, on the top of Pike's Peak, in the crowded streets of Boston and in the New York and Boston subways. The results of the analyses of uncontaminated outdoor air showed no material fluctuation in oxygen percentage in observations extending over many months and in spite of all possible alterations in weather and vegetative conditions. The average figures are 0.031 per cent. of carbon dioxid and 20.938 per cent. of oxygen. The ocean air and that from Pike's Peak gave essentially similar results.

The extraordinary rapidity with which the local variations in the composition of the air are equalized is accentuated by the observations on street air in the heart of the city, where the contaminating factors might be expected to be of sufficient magnitude to affect perceptibly the analytic data. Only the slightest trace of oxygen deficit is shown, with a minute corresponding carbon-dioxid increment. Observations such as these tend to demonstrate the extent of the diffusion of gases and the establishment of equilibrium by air-currents.

Most unexpected are the figures in regard to the extremely small extent to which the air was vitiated in the modern "tube" or subway, even during "rush" hours. There was, on the average, a fall of 0.03 per cent. in oxygen accompanied by a rise of 0.032 per cent. in the carbon dioxid. Professor Benedict points out that while the measurement of carbon dioxid has been taken as an index of good or bad ventilation, the fact that the pro-

1. Most of the facts referred to are taken from the recent monograph by Benedict, F. G.: The Composition of the Atmosphere with Special Reference to Its Oxygen Content, Carnegie Institution of Washington, Publication 166, 1912.

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portion of oxygen is actually lowered by an increase in the carbon dioxid has never before been clearly demonstrated. As a result of this, the determination of the content of carbon dioxid in the air, which can be made with ease and accuracy, suffices to establish the approximate percentage of oxygen. For every 0.01 per cent. increase in the atmospheric carbon dioxid one may safely assume a corresponding decrease in the percentage of oxygen. Aside from minor fluctuations explained above, it may now truly be said that "the air is a physical mixture with the definiteness of composition of a chemical compound."

ANAPHYLAXIS AS THE CAUSE OF DEATH FROM BURNS

The death-rate in cases of extensive burns is practically as high at present as it was two or three decades ago. In general it may be stated that burns of the second and third degree involving a third or more of the total body surface invariably prove fatal. Much work has been done and many theories have been advanced to explain the cause of death in these cases. Most of these patients die within the first twenty-four hours; others, however, who are able to withstand the initial shock, linger on for several days or even a week or more before death occurs. Bearing more especially on the cause of death in the latter group, a recent publication by Vogt[1] is interesting. Vogt found that one cubic centimeter of urine from an animal that had been severely burned, injected intraperitoneally in a normal mouse, produced lordotic convulsions and death. Previous to Vogt's work Parascandolo had obtained from the burned flesh of dogs a toxic substance which killed normal animals when injected into them. Urine of these animals injected into other normal animals also produced death with pathologic findings similar to those in the former animals. Parascandolo was also able to obtain an extract from burned animals with which he was able to immunize other animals.

Vogt does not believe that death in animals which live six or seven days after the burns are sustained can be explained by the reflex theory of Sonnenberg. Neither does the theory that death in these cases is due to primary blood changes seem tenable to him. In his opinion the accumulation of some toxic substance seems to be the more probable cause of death. Pfeiffer's theory based on the cumulative action of peptones, and Kutcher's theory that methylguanidin is the cause of death could not be substantiated by the experiments of Vogt. The latter is more inclined to believe that tissue albumins under the action of heat take on antigenic properties, so that antisubstances are developed which in turn by acting on the antigenic substances give rise to anaphylatoxic products and the symptoms of anaphylaxis.

1. Vogt, Eduard: Ztschr. f. exper. Path. u. Therap., 1912, xi, 191.

That the toxic substances are really derived from the burned tissues was proved by Vogt by transplantation experiments. Animals which had been burned in a portion of the cutis remained well if the burned skin was excised within twelve hours. Other animals on which this skin was grafted died. By experiments in parabiosis between a normal animal and an animal afflicted with burns, it was demonstrated that the former was also affected by the intoxication. In skin-muscle parabiosis, if the two animals were separated within four days, the life of the unburned animal was saved. In peritoneal unions, however, if the separation was not effected within twenty-four hours, the second animal also died. It is to be regretted that Vogt does not describe in more detail the post-mortem changes in his experiments; it might be possible in that way to advance further evidence in favor of the hypothesis that death following extensive burns is a result of anaphylaxis. If further experiments support this new view, it may prove to have an important influence on the therapy of burns.

Current Comment

THE REDUCTIO AD ABSURDUM OF VACCINE THERAPY

Seven years ago when the first clinical reports on bacterial vaccine therapy were made in the United States an attitude of skeptical pessimism was encountered in the medical profession. To-day a reaction quite to the other extreme is manifest. In fact, this "positive phase" of optimism has carried a valuable therapeutic procedure to limits little short of ridiculous. Commercial expediency on the part of establishments marketing bacterial vaccines, and ignorance on the part of physicians generally as to the limitations of this branch of biologic therapy are to blame for this condition. Manufacturers of bacterial vaccines have multiplied in number beyond a reasonable necessity, and competition between them has led to the marketing of products whose therapeutic value is far from assured, in order that a list of numerous "varieties" may be offered to physicians through advertising claims much too promising. Bacterial vaccines may soon be expected to be found on druggists' shelves like canned goods in a grocery store and at approximately the same prices. Even price-cutting has entered into the commercial scramble — except in the case of semisecret proprietaries. Because of the uncertainty underlying the identity of the offending microbe in many infections, or because of the occasional mixed or secondary infections, combinations of bacterial vaccines theoretically justified by the "shotgun prescriptions" of other days are offered. Potent bacterial products producing toxic reactions of great severity, secret as to their exact composition and vaguely aimed at a mixed infection, are in the field, recommended to the medical profession through persuasive advertising literature or through the oral representations of detail men with no technical knowledge of immunology or practical experience in therapeutics. It follows that the

use of these variously compounded bacterial derivatives is an unscientific confession of ignorance as to the specific cause of a given infection, and that the indiscriminate employment of these products must not only be ineffective but fraught with danger. Even when no more tangible harm results, the time in which an appropriate autogenous vaccine could be made and used is often wasted. In this chaotic state of affairs it is well to recall the warning by the pioneer of practical vaccine therapy, Sir A. E. Wright, who in closing his Toronto lecture[1] said: "As a natural outcome of such development in medical science a new type of practitioner would appear, namely, the immunizator. He would say, 'You are infected with a particular microbe and my business is to find out the microbe, make a vaccine from it and inoculate you and bring up the resisting power of your blood.' For such skilled service you will require a man who has spent years of study to master the technic; to know how to make the vaccines, to know where to look for the microbes, to know which are the most important microbes, to know how to isolate them, and most of all, a man with sufficient experience and ability to apply all these things."

THE ORIGIN OF THE FAT IN TUBERCLES

The use of non-toxic fat-soluble dyes, such as Sudan III, to follow the migrations of fat in the body during life has developed into an efficient method of research. We have earlier referred to the work of Mendel[2] and others indicating how these dyes enter the organism dissolved in food fat and how they are transported with it to the tissue depots, being deposited there if the fat is left or being returned to the alimentary tract through the solvent agency of the bile when the conditions for transport are not satisfactory. It appears from the observations which have been made that the fat dye rarely enters already stored fat; nor does it leave the food fat to enter the intracellular fats or the lipoids of active tissues. For example, the fat-soluble dyes never enter the brain or spinal cord, which is rich in suitable solvent components. These features suggest a method of studying the character of tubercles which contain a certain amount of fat associated with the disintegrative changes in cells and are frequently decidedly fatty in character. Dr. Corper of the Sprague Memorial Institute in Chicago has accordingly carried over to the lesions of tuberculosis the results already obtained by biologists with typical fat-soluble dyes.[3] His experiments clearly indicate that the fats of tubercles never show any of the administered fat dyes, whether the tubercles form before or after the experimental animals are, so to speak, saturated with the dye. This makes it probable that the fats microscopically visible or chemically demonstrable in tubercles are derived chiefly or solely from the existing fats and lipoids of the disintegrated cells, and not by deposition from the fats carried in the blood. The outcome of Dr. Corper's observations is in harmony with the histologic evidence and the view that the fats of the tubercle are derived from the intracellular fats of the tissues in which it has its origin, rather than from transported food fat. It is interesting, further, to note that tubercle bacilli, which have a notably fatty character, are stainable only to a limited extent *in vitro* with fat dyes, and are apparently never reached within the lesions themselves by the fat stain.

1. Wright, A. E.: Canadian Practitioner, November, 1906.
2. The Entrance and Exit of Substances Insoluble in Water in the Organism, editorial, THE JOURNAL A. M. A., Nov. 23, 1912, p. 1893. Also Mendel, L. B., and Daniels, A. L.: The Behavior of Fat-Soluble Dyes and Stained Fat in the Animal Organism, Jour. Biol. Chem., 1912, xiii, 71.
3. Corper, Harry J.: Intra-Vitam Staining of Tuberculous Guinea-Pigs with Fat-Soluble Dyes, Jour. Infect. Dis., 1912, xi, 373.

A NEW GRANULOMATOUS LOCAL INFECTION CAUSED BY PROTOZOA

Under the name of "telangiectatic granuloma," Küttner in 1895 described a peculiar skin disease which probably is identical with the disease described by the French under the name of botryomycosis, and by American dermatologists as granuloma pyogenicum.[1] It is characterized by the formation rather rapidly of pedunculated polypoid growths of certain parts of the skin, most frequently on the uncovered parts, especially the hand and still more particularly the fingers. They are observed more rarely on the feet and have been seen on the neck and other places. At first there is an infiltration or lump in the skin which rapidly penetrates the epidermis, and an ulcer forms, from the floor of which a rapid fungus-like proliferation grows out and becomes pedunculated. The growth is usually roundish, smooth or finely nodular on the surface, is intensely red, covered with a crust, and bleeds readily; in size it varies from a pea to a hazelnut and larger. Usually it is solitary but there may be many. The infiltration as a rule is rather superficial but it may extend downward and even destroy the bone and perforate the finger. These lesions have been observed chiefly in France and in South Germany in the vicinity of Freiburg. The growths consist of extremely vascular granulation tissue with leukocytes and other cells scattered between the numerous capillaries together with the plasma cells and eosinophils and mast-cells, especially in the deeper parts. Sometimes the plasma cells are very large, and there are also giant cells. There are no indications that the growth is a genuine tumor — metastases do not form, and thorough removal is not followed by return. What is the cause? Poncet and Dor have maintained that it is due to the same little-understood organism that is believed to cause botryomycosis in animals, especially horses. In horses there may develop after castration and any other lesions, chronic infiltrations with conglomerations of microbes, especially micrococci, concerning the nature of which there is doubt, but which have been called botryomyces. Poncet and Dor maintain that they have found similar microbes in the similar growths in man, but this has not been corroborated. American dermatologists regard the growths as due to infection with pus cocci, particularly staphylococci; hence the name "granuloma pyogenicum" (Hartzell). Not long ago Schridde[2] succeeded in demonstrating in such growths in man peculiar parasite-like bodies in the

1. Pusey, William Allen: Principles and Practice of Dermatology, Ed. 2, p. 483.
2. Schridde, Hermann: Das Granuloma teleangiectodes europeum, eine Protozoenkrankheit, Deutsch. med. Wchnschr., 1912, xxxviii, 218.

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plasma cells which very much resemble protozoa. These supposed parasites are intracellular, partly round, partly oval, semilunar or pear-shaped, usually staining irregularly, and often present in large numbers. They remind one much of the parasites which are found in kala-azar and oriental sore. The structure of the latter lesion corresponds quite closely with that of the telangiectatic granuloma, and the clinical similarities between the two are also marked. It is peculiar that the granulomas in question seem to develop in the months between July and November. It remains to be learned whether or not in this country also the granuloma pyogenicum of the dermatologist includes processes of a protozoan nature.

MISINFORMATION ON SEXUAL LAXITY

Those who believe that sexual indulgence is a necessity may not intend to encourage immorality and venereal disease, but that is apt to be the result of any process of making excuse for sexual laxity. If he is correctly quoted, some recent words of Mayor Gaynor of New York will have a similar effect. Because of his general reputation for humanity, philosophy and intelligence, we regret to see him giving currency to mischievous errors of fact. Speaking to the forum of the New York University, he is reported by *Collier's* as having said that irregular relations between unmarried men and women are "not forbidden by any law here or anywhere else in the world." *Collier's* stamps this statement as false by pointing out that actually such relations constitute "a criminal offense in thirty-nine states." Again Gaynor: "But in a few states of the Union they have a law making adultery a criminal offense. But it is a dead letter. Who is prosecuted for it? Nobody." Again *Collier's* replies: "Actually, only three states in the union have failed to declare adultery a crime. Reports show that conviction under both these laws is obtained in three-fourths of the states." It is one thing to express opinions as to the wisdom of these statutes; it is a different and a very serious thing to speak falsely concerning the facts and thus to mislead hearers and readers into thinking that the law-makers of our country have failed to set the seal of criminality on illicit intercourse.

THE CIRCLE WIDENS

The January number of *Good Housekeeping* announces that hereafter no food product or toilet preparation can be advertised in its columns without having been analyzed and approved by the *Good Housekeeping* Bureau of Foods, Sanitation and Health at Washington, of which Dr. Harvey W. Wiley is director. This magazine states that it accepts no advertising without knowledge of worthiness, and insists on the omission of superlatives and an adherence to fact in the wording. For two years household appliances have been tested, in a similar way. The test of food and toilet preparations is threefold. The chemists first test for harmful ingredients. If the products pass this test it is ascertained whether the substances are nourishing and wholesome if foods, or harmless and beneficial if toilet preparations. Finally the labels must be free from extravagant or exaggerated statements. Products receiving from ninety to one hundred points are awarded a star, those which receive from seventy-five to eighty-nine points, inclusive, are acceptable for advertising but do not receive a star, and those below seventy-five are thrown out. Several excellent articles, we are told, have been thrown out because of the exaggerated claims made for them. This is an extension to food and to toilet preparations of the stand taken by the few — too few — medical journals that accept no advertisements of proprietary medicines unless accepted by the Council on Pharmacy and Chemistry, and is an example of the spirit which is beginning to actuate many lay journals.

SHALL THE CALENDAR BE REFORMED?

The new year again emphasizes the need for a reformation of the calendar. Oberlin Smith[1] reviews the history of efforts in this direction and outlines a number of different schemes which have been presented for making a change in the present somewhat arbitrarily arranged calendar. The plan we have already commented on favorably is the thirteen-month year of twenty-eight days each, with an extra day to be a holiday for everybody, and an additional one on leap-year. By this arrangement the days of the week would always fall on the same dates in each month and the fixed holidays would come on the same days of the week each year. This plan has the merit of simplicity and while many objections can be raised against any change on account of the disturbance of contractual relations and the uprooting of traditional and perhaps sentimental considerations, yet this scheme has probably no more demerits than any other proposed. Objection will always be raised to any proposed plan just as there was objection to adopting the decimal system of money, or as there is to the universal adoption of the metric system, both of which have everything from the point of common sense to compel their acceptance.

A NEW FORCE AGAINST FRAUDULENT ADVERTISING

In the fight for clean advertising a new force has come into play. Enlightened public opinion has compelled the users of large advertising space to recognize the fact that an advertiser is known by the company he keeps. The Associated Advertising Clubs of America, an organization with more than ten thousand individual advertisers, has created a National Vigilance Committee whose duty it is "to wage war on dishonest advertising to the end of increasing public confidence in honest advertising." This is a most effective and promising movement. With the purchasers of large advertising space refusing to give contracts to those publications which carry fraudulent advertising — medical or otherwise — an enormous step in advance will have been taken. This activity on the part of large advertisers has already begun to bear fruit, and there is every reason to feel optimistic for the outcome. This new force will simplify to a wonderful degree the problem of fraud in advertising.

1. Smith, O.: Pop. Sci. Month., December, 1912, p. 582.

Medical News

ALABAMA

New Officers.—Morgan County Medical Society at New Decatur: president, Dr. John B. Shelton, New Decatur; secretary-treasurer, Dr. U. C. Bailey, Decatur.——Shelby County Medical Society at Calera, December 10: president, Dr. E. C. Clayton, Coalmont; secretary-treasurer, Dr. J. I. Reid, Montevallo.——Marengo County Medical Society at Demopolis, December 24: president, Dr. J. B. Whitfield, Demopolis; secretary, Dr. C. W. Brasfield, Octagon (reelected).——Bullock County Medical Association at Union Springs, December 13: Dr. J. R. Oswalt, Union Springs.——Barbour County Medical Society at Eufaula, December 17: president, Dr. B. F. Bennett, Louisville; secretary-treasurer, Dr. J. W. Fenn, Eufaula.——Walker County Medical Society at Jasper, December 13: president, Dr. A. A. York, Empire; secretary-treasurer, Dr. J. L. Sowell, Jasper.——Randolph County Medical Society at Roanoke: president, Dr. P. G. Trent, Sr.; secretary, Dr. W. W. Stevenson, both of Roanoke.——Colbert County Medical Society at Tuscumbia, December 12: president, Dr. H. W. Blair, Sheffield; secretary-treasurer, Dr. J. T. Haney, Tuscumbia.——Baldwin County Medical Society at Bay Minette, January 9: president, Dr. C. F. McKinley, Perdido Station.

ARKANSAS

Estimates for Tuberculosis Sanatorium.—The biennial report of the board of trustees of the Arkansas Tuberculosis Sanatorium shows that 444 patients were treated during the last biennium. The institution has now seventy patients, and a training school for nurses has been started. An appropriation of $105,000 for the next two years has been asked. This includes $15,000 for a new hospital.

New Officers.—Jackson County Medical Society at Newport, December 10: president, Dr. Josephus S. Graham, Tuckerman; secretary-treasurer, Dr. Ira H. Erwin, Newport.——Sebastian County Medical Association at Fort Smith: president, Dr. Clark Wood; secretary, Dr. D. R. Dorente, both of Fort Smith.——Phillips County Medical Association at Helena: president, Dr. H. M. Thompson, Marvell; secretary-treasurer, Dr. W. R. Orr, Helena.——Lawrence County Medical Society at Hoxie, December 5: president, Dr. Earl Thomas, Hoxie; secretary-treasurer, Dr. J. H. Stidham, Walnut Ridge.——Independence County Medical Society at Batesville, January 2: president, Dr. L. T. Evans, Barren Fork; secretary-treasurer, Dr. O. J. Johnston, Batesville.——Green County Medical Society at Paragould: president, Dr. R. E. Bradsher, Marmaduke; secretary, Dr. Olive Wilson, Paragould.——Pulaski County Medical Society at Little Rock, December 2: president, Dr. Robert Caldwell; treasurer, Dr. William R. Bathurst, both of Little Rock.——Craighead County Medical Society at Jonesboro, January 11: president, Dr. P. W. Sutterloh; secretary-treasurer, Dr. R. H. Willett.

COLORADO

New Officers.—Las Animas County Medical Society at Trinidad, January 10: president, Dr. William Ogle, Terico; secretary, Dr. Ben Beshoar, Trinidad.——El Paso County Medical Society at Colorado Springs, December 11: president, Dr. Beverly Tucker; secretary, Dr. J. H. Brown, both of Colorado Springs.——Otero County Medical Society at La Junta, December 11: president, Dr. J. A. Lawson, Rocky Ford; secretary-treasurer, Dr. A. S. Brunk, La Junta.

Personal.—Dr. John O. Stow, formerly of Goldhill, has lost his right eye in an effort to remove a malignant growth in one of the nasal sinuses.——Dr. Maurice Kahn, Leadville, who has been suffering with frontal sinusitis has gone to California for rest and recuperation.——Dr. E. F. Dean has been elected president; Dr. F. H. McNaught, vice-president, and Dr. R. L. Charles, secretary of the medical staff of St. Joseph's Hospital, Denver.——Dr. A. P. Busey has resigned as superintendent of the State Hospital for the Insane, Pueblo, and has been appointed superintendent of the State School for the Feeble-Minded, Arvada.——Dr. Ralph Morris, Longmont, is ill with pneumonia in Longmont Hospital.——Dr. and Mrs. C. F. Stough, Colorado Springs, have returned from Europe.

ILLINOIS

Small-Pox in Evanston.—The discovery that a teacher in the public schools of Evanston had small-pox resulted in the issuance of orders by the city council that more than 3,000 school children of Evanston be vaccinated.

Millions Needed for Dunning.—The fiscal supervisor of the State Board of Administration reports that for the eighteen institutions now under the immediate supervision of the board, an aggregate of $9,625,369 is required. For ordinary operating expense at the Chicago State Hospital, Dunning, $1,131,400 is asked and also $1,002,216 for rehabilitation of the institution.

Personal.—Dr. Darwin M. Keith has been elected president, Dr. T. H. Culhane, vice-president and Dr. D. W. Day, secretary of the medical staff of Rockford Hospital.——Dr. H. F. Ballard, Chenoa, who has been seriously ill with cholelithiasis, is reported to be improving.——Dr. H. A. Haskell, Lynnville, fell on the ice at Jacksonville, January 9, causing a slight concussion of the brain.——Dr. E. P. Cook, Mendota, has returned after a vacation of three months.

The State University Medical Department.—The alumni of the University of Illinois now state that they will be prepared to turn over the College of Physicians and Surgeons as a gift to the University, February 1.——A petition sent by twenty-six members of the Woodford County Medical Society requests the senate and house of representatives of the state to consider the establishment of a medical department in Chicago. The petition further states that the location of a medical department or any part of it in Urbana will be detrimental to the best interests of the department.

Health Board Recommendations.—At the annual meeting of the State Board of Health, the following recommendations were made by the president:

1. Continuation of distribution of free diphtheria antitoxin.
2. Enactment of an effective vital statistics law.
3. Free distribution of typhoid vaccine to prevent typhoid.
4. Amendment to Medical Practice Act permitting midwives to use suitable prophylactics to prevent ophthalmia neonatorum, this to be supplied to all midwives by the board, and to physicians on request.
5. State sanatorium for tuberculosis.
6. Epileptic colony, provided we can get No. 5 also. If not, then a sanatorium in preference to an epileptic colony.

New Officers.—Marion County Medical Association at Centralia: president, Dr. W. W. Murfin, Patoka; secretary, Dr. F. M. Phifer, Centralia.——DeWitt County Medical Association at Clinton, December 21: president, Dr. O. B. Edmonson; secretary-treasurer, Dr. Charles W. Carter, both of Clinton.——Physicians' Protective Association of Marissa and vicinity, organized at Marissa, December 21: president, Dr. J. L. Campbell; secretary-treasurer, Dr. G. R. Hays, both of Marissa.——Danville Physician's Club, December 19: president, Dr. H. S. Babcock; secretary, Dr. O. H. Crist.——Will County Medical Society at Joliet, December 16: president, Dr. A. J. Lennon; secretary-treasurer, Dr. Marion K. Bowles, both of Joliet.——St. Clair County Medical Society at East St. Louis, January 6: president, Dr. C. A. W. Zimmerman, East St. Louis; secretary, Dr. B. H. Portuondo, Belleville.

Result of Examinations for State Hospitals.—At the recent examinations conducted by the State Civil Service Commission for assistant superintendents and physicians at state hospitals, the following were successful: assistant superintendent, promotional—Drs. Max C. Hawley, Watertown State Hospital; Isaac F. Freemmel, Chicago State Hospital, Dunning; Samuel N. Clark, Kankakee State Hospital; Clessan C. Atherton, Elgin State Hospital; Walter L. Treadway, Jacksonville State Hospital; Emil Z. Levitin, Peoria State Hospital; George W. Morrow, Anna State Hospital; Rommey N. Ritchey, Anna State Hospital; Francis J. Sullivan, Kankakee State Hospital, and Angelina Hamilton, Peoria State Hospital; assistant physicians—Drs. Colin Thomas, Cook County Hospital; Harry C. Rolnick, Cook County Hospital; Oliver P. Bigelow, Cleveland; Harry J. Dooley, Cook County Hospital; Peter S. Winner, 1423 Turner Avenue, Chicago; Victor A. Bles, Elgin State Hospital; Minerva L. Blair, Jacksonville State Hospital; Graham M. Lisor, Chicago State Hospital; Harry J. Freemmel, Chicago State Hospital, and James J. Mendelsohn, Lincoln State School and Colony.

Chicago

Gift to Wesley Hospital.—A Thanksgiving present of $777,352 is to be given to Wesley Hospital by the trustees at the twenty-fifth anniversary of the institution on Thanksgiving Day. This will make the endowment fund of the institution $1,000,000.

The Work of the Visiting Nurses.—At the annual meeting of the Visiting Nurses' Association of Chicago, January 10, the superintendent stated that the staff of fifty-eight nurses made, in the last year, more than 162,000 visits to the homes of the poor, sick and friendless, and administered to nearly 51,000 patients. The receipts for the year were more than $85,000 and the disbursements exceeded $76,000.

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Ladies' Night at the Englewood Branch.—The twelfth annual banquet and ladies' night of the Englewood Branch of the Chicago Medical Society was celebrated January 20, nearly two hundred guests being present. Preceding the banquet, a reception was held from 6:30 to 7:30. Dr. Woods Hutchinson was the orator of the evening.

Personal.—Dr. C. G. Elmore, formerly of Chadron, Neb., has been appointed sanitary inspector of the Chicago and Northwestern Railway. His especial duty is to consider the sanitation of coaches and chair cars.——Dr. H. M. Hunt was struck by a street car, January 15, spraining his ankle and sustaining severe bruises.——Dr. George C. Amerson has been elected president, Dr. R. H. Good, vice-president, and Dr. W. A. Barr, secretary, of the staff of the Frances E. Willard Hospital.

Contagious Diseases.—The total number of cases of contagious diseases reported during the week ended January 18 was 1,765, a slight increase over the preceding week. Twenty-two cases of small-pox were reported all but two of which were in the South Chicago District. There were 262 cases of diphtheria reported, nearly double that of the corresponding week of 1912, and 435 cases of scarlet fever, nearly four times as many as in the corresponding week of last year. The mortality from diphtheria was 40 as compared with 11 for the corresponding week of the previous year and that of scarlet fever was 37 as compared with 7 for the corresponding period. Diphtheria showed its greatest increase in two of the best residence wards of the city, the Sixth on the South Side and the Twenty-Fifth on the North Side.

KENTUCKY

Tuberculosis Commission Elects Secretary.—The State Tuberculosis Commission at its session in Frankfort, January 2, elected Roy French, Baltimore, who has had wide experience in the investigation of tuberculosis, secretary.

Ask that Fayette County be Made Tuberculosis District.—The King's Daughters of Lexington at a meeting of the Fiscal Court, presented a petition, strongly urging that the county be made a tuberculosis district. The King's Daughters have funds which they wish to use in the work of tuberculosis, but can do nothing until the county has been declared a tuberculosis district.

Sanatorium News.—The Kentucky Antituberculosis Association is making strenuous efforts to have reconstructed the buildings which were burned. Of the six buildings comprising the institution, two were burned and it has been necessary to use two of the remaining buildings for kitchen, staff bedrooms, store-rooms, etc., thus leaving two buildings only for patients.——The Beechhurst Sanitarium, Louisville, has been transferred from Dr. M. H. Yeaman to his former first assistant, Dr. H. B. Scott.

State Board of Health Meeting.—At the annual meeting of the State Board of Health, in Louisville, January 8, messages were received from the Rockefeller Commission commending the work being done in Kentucky regarding hookworm and from Surgeon-General Blue, U. S. P. H. Service, promising to send an officer to Kentucky with the necessary equipment to make investigations among the prisoners of the state with a view to exterminating syphilis, with which 50 per cent. of the inmates of penal institutions are said to be afflicted.

Contagious Diseases.—Hickman is rigidly observing quarantine because of cerebrospinal meningitis in Tennessee. No one is allowed to enter the city from the infected district of Tennessee without health certificates and proper credentials. Druggists are said to have ordered a supply of serum in anticipation of appearance of the disease and schools and public gatherings have been suspended.——The health authorities of West Point have reported the discovery of a fully developed case of small-pox in the public school in that place and that vigorous precautions are being taken against the spread of the disease.

Personal.—Dr. Louis Frank, Louisville, who underwent a surgical operation in Cleveland, December 20, has recovered and returned home.——Dr. Thomas C. Holloway, Lexington, announces his removal to Memphis, and that his practice will hereafter be limited to diseases of the genito-urinary tract. ——Dr. Edward J. Strickler, Elizabethtown, who was operated on recently for appendicitis in Louisville, has recovered and returned home.——Dr. Holland B. Simpson, Breeding, was thrown from his horse, recently, fracturing two ribs.——Dr. Evart Hankins, Finchville, who was operated on recently in the Jewish Hospital, Louisville, has returned home.——Dr. E. H. Maggard has resigned as physician to the Frankfort Infirmary.——Dr. R. H. Dunn has been appointed general surgeon for the Pond Creek Coal Company at Stone, Ky.——Dr. W. A. Young, Newport, has been appointed surgeon-in-chief of the Cincinnati Division of the Chesapeake and Ohio Railway and Chesapeake and Ohio Railway of Indiana.

New Officers.—Bourbon County Medical Society at Paris, December 26: president, Dr. F. L. Lapsley; secretary, Dr. C. G. Daugherty.——Jefferson County Medical Society in Louisville, December 23: president, Dr. Dunning S. Wilson; secretary, Dr. A. C. L. Pereeful.——Christian County Medical Society at Hopkinsville: president, Dr. Frank M. Stites, Hopkinsville; secretary-treasurer, Dr. W. S. Sandbach, Casky.——Daviess County Medical Society in Owensboro, December 17: president, Dr. W. Lee Tyler, Curdsville; secretary-treasurer, Dr. J. J. Rodman, Owensboro.——Clifton Medical Club, Louisville: president, Dr. E. T. Grasser; secretary-treasurer, Dr. E. D. Richey.——Fayette County Medical Society at Lexington: president, Dr. George B. Sprague; secretary-treasurer, Dr. L. C. Rodman (reelected), both of Lexington.——Henderson County Medical Society at Henderson: president, Dr. R. H. Moss; secretary-treasurer, Dr. P. Ligon, both of Henderson. ——McCracken County Medical Society at Paducah, January 8: president, Dr. H. G. Reynolds; secretary, Dr. C. E. Kidd, both of Paducah.——Oldham County Medical Association at La Grange: president, Dr. J. H. Speer, Brownsboro; secretary-treasurer, Dr. E. D. Burnett, Anchorage.

MARYLAND

Cornerstone to be Laid.—The cornerstone of the new Miners' Hospital, Frostburg, for which the last legislature appropriated $25,000, will be laid, February 2.

Tuberculosis Clinic in Cumberland.—A tuberculosis clinic is to be opened in the basement of the new city hall, Cumberland. A visiting nurse will be in charge and five physicians have volunteered to assist.

New Officers.—Allegany and Garrett County Medical Society at Cumberland, January 8: president, Dr. J. H. McGann, Barton; secretary-treasurer, Dr. Charlotte B. Gardner, Cumberland (reelected).——Baltimore County Medical Association, January 15: president, Dr. Alfred T. Gundry; secretary, Dr. J. Carroll Monmonier.

Personal.—Dr. D. W. Hopkins has been appointed vaccine physician for Havre-de-Grace.——Dr. John S. Fulton has been elected secretary of the Maryland State Board of Health, to fill the vacancy caused by the illness of Dr. Marshall L. Price, who is now in a hospital in Philadelphia.——Dr. Charles A. Wells has been elected president of the Upper Marlboro Bank.

Baltimore

Psychiatric Clinic to Open.—The psychiatric clinic of Johns Hopkins Hospital will open, April 16, with accommodation for one hundred patients. It will be divided into three classes, acute, semi-acute and quiet.

Hebrew Hospital Meeting.—At the annual meeting of the Hebrew Hospital, held January 12, gifts were announced of a mattress sterilizer valued at $1,500 and of $4,000 through Dr. Charles Bagley, Jr., as a foundation for the pathologic fund. A new nurses' home has been added during the year. An observation and isolation ward is urgently needed.

Mental Hygiene Week Opened.—The committee of public instruction of the Medical and Chirurgical Faculty of Maryland has planned a mental hygiene week late in February. Elaborate exhibits on mental hygiene and temperance will be shown and papers will be read on topics relating to mental health, eugenics, alcoholism, etc. This congress will be followed by smaller meetings in various parts of the city and surroundings.

Personal.—At the annual meeting of the Hebrew Hospital, January 12, Dr. Harry Adler was reelected president.——Dr. Nathan R. Gorter has been appointed health officer of Baltimore, vice Dr. James Bosley, deceased.——Dr. John C. Harris, who suffered a cerebral hemorrhage several months ago, fell from his window to the cellarway, recently, suffering severe cuts and bruises.——Dr John M. T. Finney has been appointed professor of clinical surgery in Johns Hopkins University.—— Dr. Thomas R. Boggs has been made physician-in-chief of the City Hospital.——Dr. Walter G. Sexton has been made resident surgeon of the Hebrew Hospital.

MASSACHUSETTS

Gift to Harvard.—Harvard Medical School has received a gift of $25,000 from Prof. and Mrs. Frederick C. Shattuck,

which will be used for the establishment of the Arthur Tracy Cabot scholarship in surgery.

Staff of Brigham Hospital.—The following members of the medical and surgical staff of the Peter Bent Brigham Hospital, (Roxbury) Boston, have been appointed: physician-in-chief, Dr. H. A. Christian; visiting physician, Dr. Channing Frothingham, Jr.; resident physician, Dr. Francis W. Peabody, Jr., Cambridge; house officers, Drs. Chandler Walker, Reginald Fitz, R. P. Dawson and W. G. Smille; surgeon-in-chief, Dr. Harvey W. Cushing; visiting surgeons, Drs. John Homans and David Cheever; resident surgeon, Dr. Emil Goetsch, Baltimore; superintendent and general financial agent, Dr. H. B. Howard.

Personal.—Dr. Thomas B. Smith, Lowell, has been appointed associate medical examiner for Middlesex County, vice Dr. Pell, deceased.——Dr. E. C. Wylie, Boston (Dorchester), was severely injured by the overturning of his automobile, recently. ——Dr. J. R. Slattery has been elected associate physician-in-chief and superintendent of St. Elizabeth's Hospital; Dr. M. J. Cronin, Roxbury, reelected assistant physician-in-chief and Dr. Edward A. Supple, Boston, reelected assistant surgeon-in-chief. ——Dr. F. E. Garland has been elected vice-president of the Boston Municipal Athletic Association.——Dr. A. K. Boom, Adams, has been elected president and Dr. F. J. O'Hara, North Adams, secretary of the staff of the North Adams Hospital.

Hospital Notes.—Arrangements have been completed between the Fairview Hospital Corporation and the Visiting Nurses' Association of Great Barrington, whereby a house on West Avenue will soon be opened containing living quarters and an office for the visiting nurse and rooms for emergency cases of illness and accidents.——The report of the Massachusetts Babies' Hospital states that the hospital is still unable to meet the increased demands for its service and that because of lack of funds, it is obliged to turn away sick babies that need hospital treatment, and well babies that should be sent out to board. The hospital needs $5,000 before April 1 in order to continue even its present service.——The new Marlboro Hospital, donated by Hannah E. Bigelow, was opened January 1, to receive patients.——The new Hampden Hospital, Springfield, has recently been opened. The building has been remodeled at a cost of $12,000, and fitted out with a modern equipment.——The State Board of Health, in a communication December 12, insists that the Lowell board shall obey the law regarding the erection of a hospital for the care of contagious diseases.

NEW YORK

New Location for Medical College.—The Albany Medical College has secured the rights to the land where the old penitentiary building now stands, and there it is planned to erect new buildings.

Site Purchased for Cancer Experiment Station.—Ten citizens of Buffalo have purchased a farm of 31 acres in Springville as a site for an experiment station for the state institute for the the study of malignant disease.

Contract for Care of Tuberculosis Patients.—The board of supervisors of Wayne County has entered into a contract with Sunny Crest Hospital, Auburn, to receive and care for Wayne County patients over 15 years of age at an expense of $8 per week.

Asks Three Million Dollars for Medical School.—President Elmer Ellsworth Brown, in his annual report to the Council of New York University, calls attention to the needs of the university. Altogether $5,000,000 is asked for, $1,000,000 of which is for the permanent endowment of the medical school and $2,000,000 for the building, equipment and endowment of a teaching hospital.

Health Officers Must Report Communicable Diseases.—General notice has been served by Commissioner Porter that health officers will be removed from office if they fail to report promptly to the department all cases of communicable disease. It is pointed out that it is the business of local health boards to see that their health officers perform their duties, but if they fail to act the health officers will be cited to show cause why they should not be removed from office.

Personal.—Dr. F. E. Fronczak, health commissioner of Buffalo, has a mild attack of appendicitis.——Dr. Charles B. Wills, Huntington, was given a verdict of $1,000, January 14, in a suit for $10,000 damages on account of injuries received, November, 1910, when he was run down by an automobile owned by an attorney of New York City.——Dr. C. S. Wilson, Lestershire, fractured his arm, January 8, while cranking his automobile.——Dr. A. E. Broga, Oneida, is reported to be seriously ill with heart disease.

New Officers.—Orange County Medical Association at Goshen, January 8: president, Dr. E. C. Thompson, Newburgh; secretary, Dr. E. M. Schultz, Middletown.——Amsterdam Medical Society, January 9: president, Dr. L. H. Finch; secretary-treasurer, Dr. David Wilson.——Cattaraugus County Medical Society: secretary, Dr. Benjamin Van Campen, Olean.——Oswego Academy of Medicine, January 8: president, Dr. C. S. Albertson; secretary-treasurer, Dr. H. S. Albertson.——Jefferson County Medical Society, at Watertown, January 9: president, Dr. S. C. Hollis, Belleville; secretary, Dr. Charles E. Pierce, Watertown (reelected).

Port Health Officer Wants Increased Force.—Dr. James J. O'Connell, Health Officer of the Port of New York, in his annual report to the legislature recommends the creation of thirty-seven new positions in his department, carrying salaries that amount to $35,000 a year. He says that he has reduced the expenditures of 1912 by $50,000 as compared with 1911. Dr. O'Connell also recommends the establishment of a branch post-office in his department and the creation of a memorial tablet to commemorate the services and death of Dr. Edward Fiske Ashley, the bacteriologist who died in 1911 from spinal meningitis contracted while in performance of duty.

Accidents on State Railroads.—Accidents on steam railroads in this state for the year ended June 30: killed, 871 persons and injured 4,340. Accidents to locomotive boilers caused three deaths and 40 injuries, but the commission states that there have been no boiler explosions in the five years since the state has had jurisdiction over locomotive boilers. On the electric railways outside of New York City, 80 persons were killed and 2,206 injured during the year 1912. The commission reports that safety precautions taken by telephone and telegraph companies have decreased the number of fatal accidents 57 per cent. and non-fatal accidents 45 per cent. as compared with the previous year.

Public Medical Lectures.—The first of the series of free public lectures on medical subjects by members of the faculty of the medical department of the University of Buffalo was given, January 12, in Alumni Hall, by Dr. Lucien Howe, who spoke on the progress of medicine concerning the eye. The succeeding lectures are by Dr. Lesser Kauffman on the measure of blood-pressure and its meaning, by Dr. James C. Sullivan on producing the method of general anesthesia, by Dr. W. W. Plummer, who will show *x*-ray pictures of the digestive processes, and others. The course will continue every Sunday afternoon until March 2, when Health Commissioner Fronczak will speak on the methods of avoiding the spread of contagious and communicable disease.

New Cocain Bill.—A bill is ready for presentation to the legislature which it is believed is drastic enough to crush the illegal traffic in cocain in New York. It makes the illegal sale of the drug a felony with a seven-year penalty; the possession and traffic in flake cocain are prohibited and the drug is required to be traced from the manufacturer to the druggist. The bill limits the character of prescriptions which a doctor may give, and a physician is not allowed to prescribe the drug in the crystalline form. Thirty days after the passage of the act druggists, physicians and veterinarians must keep records, and when purchase sheets and sale lists fail to tally, it will be presumptive evidence of illegal sale, and no drug store may have more than five ounces of the drug at one time. Every effort has been made to have the bill conform to the requirements of the legitimate drug trade. The bill has the endorsement of the New York County Medical Society.

Hospital News.—The new Saratoga Hospital was formally dedicated December 28. The building, which was erected at a cost of $90,000, the money being raised by the efforts of the women of Saratoga, is of thoroughly modern construction and equipment and its staff includes the following physicians: Fred J. Resseguie, John F. Humphrey, J. B. Ledlie, Amos W. Thompson, G. Scott Towne, Earl H. King, Miles E. Varney, Henry L. Loop, James R. Swanick, W. J. Green, A. Sherman Downs, George H. Fish and M. E. Van Aernem.——Mrs. Bowne has offered $60,000 for the extension and equipment of the Bowne Memorial Hospital, Poughkeepsie.——The J. N. Adam Hospital, Perrysburg, is raising a fund to build a hospital for children suffering from tuberculosis.——The Ad Club of Rochester has announced its intention of raising $100,000 for the Infants' Summer Hospital. It has organized a stock corporation whose advertisements read as follows:

> Babies' health unlimited.
> Infants' Summer Hospital.
> Rochester Ad club, Incorporators.
> Capital stock unlimited.
> All stock preferred.
> Guaranteed continuous dividends for perpetual happiness.

New York City

New Laboratory Opened.—The new physiologic laboratory of the Polhemus Memorial Clinic of Long Island College Hospital will be formally opened, January 29, at 3 p. m. The principal address will be delivered by Dr. John C. Cardwell.

New Officers.—New York Neurological Society: president, Dr. S. Ely Jelliffe; recording secretary and treasurer, Dr. C. E. Atwood.——New York Psychiatric Society: president, Dr. Charles L. Dana, New York City; secretary-treasurer, Dr. Swepson J. Brooks, Harrison.

Society Opposes Publicity.—The Williamsburg Medical Society at its meeting January 3, put itself on record as being averse to newspaper publicity. After an address on the subject, it was voted that no information should be given to the lay press concerning the meetings.

Hospital Saturday and Sunday Results.—At the annual meeting of the Hospital Saturday and Sunday Association it was announced that more than $45,000 had been received thus far, an increase over the amount collected up to this time last year. The Woman's Auxiliary reported that it had raised $11,700.

Personal.—Dr. Heinrich Riedel has, through the German Medical Society of New York, been presented with an honorary diploma by the Medical Faculty of Erlangen University, Bavaria, on the occasion of his fiftieth anniversary of his doctorate in medicine. The president of the society also presented the congratulations of the German Hospital, of which Dr. Riedel was the first house physician.

City Withholds Hospital Gift.—Four years ago the city transferred its rights in the property at Park Avenue and Sixty-Eighth Street worth several hundred thousand dollars to the Hahnemann Hospital with the understanding that the hospital should care for the poor. The Sinking Fund Commission has now decided to reconsider this transfer on the ground that the hospital is not caring for all the poor that apply. A committee of investigation has been appointed.

Lebanon Hospital Asks Funds.—A campaign is in progress to obtain $50,000 for this institution, part of which is needed to wipe out deficits in the cost of maintenance and part for improvements and new buildings. Those in charge of the Lebanon Hospital say that this is the first time in twenty-five years that this institution has made a public appeal for funds. Last year more than 4,000 patients received treatment in the hospital and over 30,000 in the dispensary. The hospital answered 2,500 ambulance calls during the year.

Medical Reserve Corps Division Organized.—The Medical Reserve Corps, U. S. Army, New York Division, was organized at Fort Jay, Governors Island, December 7, with an initial membership of two hundred. The following officers were elected: president, First Lieutenant Henry Clarke Coe; vice-president, First Lieutenant Thomas Darlington; secretary, First Lieutenant Harold Hays; treasurer, First Lieutenant H. Sheridan Baketel; councilors, First Lieutenants Arnold Knapp, Howard Lilienthal, Clarence A. McWilliams, Eugene H. Pool and John Rae.

Discontinuance of Free Antitoxin Administration.—The Department of Health of the City of New York announces that the free administration of diphtheria antitoxin by the department and the performance of intubation at the homes of the patients on request of attending physicians, will be discontinued after February 1. After that date, when it becomes necessary for the department to administer antitoxin, or to perform intubation in any case of diphtheria, the patient will be removed to one of the hospitals of the department for further observation and treatment. Diphtheria antitoxin may still be obtained, free of charge, by physicians from supply stations at drug stores, when payment for the same would be a hardship to the patient.

A Good Year for Babies.—The Babies' Welfare Association has made public a summary of the work done in 1912. While the general death-rate was reduced from 15.13 to 14.11 per one thousand of the population, or a little more than 1 per cent., the rate for infants under one year was reduced 6 per cent. There were during the year 1912, 14,289 deaths of babies under one year of age as compared with 15,053 deaths during 1911. At the same time the number of births in the city increased by 1,081. In this ratio the figures show a saving of 884 babies, and an actual saving of 764. These results are attributed to the cooperation of the eighty agencies forming the Welfare Association and not entirely to weather conditions as the mortality rates in other cities do not show such a reduction and there was no decrease in the number of deaths in the Bronx where there are only three milk stations and the social welfare work is not as well organized as in the other boroughs.

Public Health Lectures.—A series of lectures is being given by the Public Health Education Committee of the Medical Society of the County of New York with the cooperation of the New York Academy of Medicine and American Medical Association, having for its design an educational campaign which is being carried forward with the hope of lessening suffering and saving life. The lectures began January 8 and are given on alternate Wednesday evenings and Thursday afternoons. The general subject of the course is the prevention of disease and the special subjects of lectures are, the growing child; household sanitation; diseases of exposure; deafness; surgical emergencies; care of convalescent and chronic invalids; industrial hygiene; the mental growth of the child; relation of the food to development; common skin conditions; advances in modern medicine and common contagious diseases. These lectures are open to the public and no cards of admission are required.

Bureau of Clinical Information.—The Society for the Advancement of Clinical Study in New York has opened a bureau of information at the New York Academy of Medicine. This bureau will furnish visitors to New York and the local profession information which will enable them to make use of the large clinical opportunities that are always here and which have hitherto not been generally available. The members of the medical profession are requested to furnish the bureau with information regarding their clinical work which they are willing any physician should visit. Surgeons are requested to send a list of operations which they have arranged for the following day. Any information as to autopsies, laboratory demonstrations, lectures and medical clinics is also desired. The bureau is supported by funds furnished by the Society for the Advancement of Clinical Study and the medical profession is requested to lend its aid by joining the society. An attendant will be on duty daily after 9 o'clock to furnish any desired information.

NORTH CAROLINA

Change of Date of State Meeting.—On account of conflict with the meeting of the American Medical Association, the Medical Society of North Carolina has changed the date of its sixtieth annual meeting, to be held at Morehead City, from June 17 to June 19.

New Officers.—Wake County Medical Society at Raleigh, December 12: president, Dr. Hubert A. Royster; secretary, Dr. W. C. Horton, both of Raleigh.——Durham County Medical Society in Durham, December 13: president, Dr. W. N. Hicks; secretary-treasurer, Dr. Foy Robinson, both of Durham.

Physician Vindicated.—Dr. Paul Paquin, Asheville, was arrested January 4, charged with having given a prescription for whisky to a patient, December 6. The patient was a Good Government League detective who claimed to be ill with la grippe and after detailing his symptoms, and affirming that he always secured relief from the use of whisky and glycerin, was given a prescription containing these ingredients by Dr. Paquin. At the meeting of the Buncombe County Medical Society, January 6, a resolution was adopted affirming the confidence of the society in the integrity of Dr. Paquin. At the hearing before the Municipal Court, January 8, Dr. Paquin was fully vindicated by the trial justice and the police authorities were censured for presuming to call in question the right of a physician to exercise his judgment as to the nature of medicine to be prescribed for a patient.

PENNSYLVANIA

Plans for County Hospitals.—At a meeting of the Pennsylvania Society for the Prevention of Tuberculosis held January 17, draft of a bill permitting counties in the state to erect hospitals for the treatment of consumptives was approved, and the society will have the bill introduced at the present session of the legislature. The act reads that on petition of 5 per cent. of the voters of any county, the question as to the establishment of a tuberculosis hospital shall be voted on at the next general election. This is intended to make provision for the dying and bed-ridden consumptives.

Epidemic Diseases.—The schools of Millville, Columbia County, are closed as the result of an epidemic of measles, seventy-six children having the disease.——The spread of typhoid along the main line of the Pennsylvania Railroad near Ardmore has become so alarming that the board of health of the county is making a rigorous investigation of the water

and milk supply. A preliminary investigation of both these supplies failed to show any infection as both were found nearly normal. A second test is being made by Dr. David W. Horn and the retail milk dealers are cooperating with the board of health, and have furnished a list of the dairies from which they receive supplies.

Philadelphia

Personal.—Dr. Richard S. Hooker was operated on for appendicitis at the Episcopal Hospital, January 10, and is making good progress toward recovery.——Dr. Samuel J. Gittelson of the staff of Mount Sinai Hospital has gone to Germany.

The President Guest of the Medical Club.—President Taft, who was in this city as the special guest of the Clover Club, attended and addressed the meeting of the Medical Club of Philadelphia, January 17. This is the second time that President Taft has been a guest of this organization.

Measles and Small-Pox.—There were 348 cases of measles reported to the Bureau of Health during the week ended January 18. The number during the previous week was 321. Scarlet fever is also spreading, 122 new cases having been reported. ——Following the discovery of three cases of small-pox at 1804 Addison Street, apartment houses and private homes in the fashionable district were quarantined until all were vaccinated. All three victims were negroes, who had been employed as servants in private homes or apartments. It was a serious situation, as one of the victims had worked as heater tender in a number of homes. The fact that all three victims had never been vaccinated caused the Board of Health to issue a warning to all hotels, apartments and stores not to employ persons who are unable to show a mark of a successful vaccination. Three physicians have been stationed in the neighborhood of Eighteenth and Addison Streets to keep a careful watch over the residents. Nearly 2,000 persons were vaccinated on January 17 and 18.

New Officers.—South Side Branch of the Philadelphia County Medical Society: chairman, Dr. S. A. Loewenberg; clerk, Dr. N. Ginsburg.——Section on Otology and Laryngology of the College of Physicians of Philadelphia: chairman, Dr. Arthur A. Bliss; clerk, Dr. Ralph Butler, both reelected.——Academy of Natural Sciences: president, Dr. Samuel G. Dixon; recording secretary, Dr. Edward J. Nolan.——Medico-Pharmacal Association: chairman, Dr. M. V. Leof; clerk, Dr. H. S. Snyderman.——West Philadelphia Medical Association: president, Dr. George C. Shammo; secretary, Dr. Henry G. Munson.——Aid Association of the Philadelphia County Medical Society: chairman of the board of directors, Dr. Samuel D. Risley.——Philadelphia Pediatric Society: president, Dr. Theodore LeBoutillier; secretary-recorder, Dr. Maurice Ostheimer.——Northern Medical Association: president, Dr. Henry Beates, Jr.; secretary, Dr. William H. Mackay.——Physicians' Motor Club of Philadelphia: president, Dr. S. Leon Gans; secretary, Dr. Howard A. Sutton.——Philadelphia County Medical Society, January 15: president, Dr. Charles A. E. Codman; secretary, Dr. William S. Wray.——Medical Club of Philadelphia, January 17: president, Dr. James C. Wilson; secretary, Dr. William S. Wray.

WISCONSIN

Municipal Hospital for Waukesha.—Through the efforts of the Waukesha City Medical Society and the Women's Clubs, a fund of $15,000 has been secured for the erection of a municipal hospital, designed to accommodate both private and city cases.

Health Insurance for Working Men.—Insurance against sickness for the working men and women, to be administered by the State Industrial Commission, and to be correlated with the administration of the Workmen's Compensation Act, is one of the plans to be worked out for presentation in the bill for the next Wisconsin legislature.

Medical Colleges Merge.—By the direct purchase of the Wisconsin College of Physicians and Surgeons and leasing the property of the Milwaukee Medical College, it is reported that Marquette University has brought about the merger of the two medical schools of Milwaukee. The new school resulting will, it is said, be developed as an organic department of the Marquette University, under the name Marquette University School of Medicine.

TEXAS

Personal.—Dr. B. R. Valls has succeeded Dr. J. M. Matthews as local surgeon of the Santa Fe System at Wharton, and Drs. J. F. Mathews and A. J. Pollard, Alvin, have succeeded Dr. R. S. Brunfield as local surgeons at Alvin.——Dr. W. H. Brown, Coffeeville, was shot from ambush, December 27, and is in a critical condition at the Kahn Memorial Hospital, Marshall.——Dr. Donald McKay, mayor of Flatonia, recently underwent operation at the Southern Pacific Hospital, Houston, and is reported to be convalescent.——Dr. W. L. Crosthwaite, Waco, has been elected secretary of the State Board of Medical Examiners, vice Dr. J. R. Mitchell, Fort Worth, resigned.

New Officers.—Bell County Medical Association at Temple, December 4: president, Dr. G. T. Thomas, Amarillo; secretary-treasurer, Dr. E. J. Burns, Temple.——Galveston County Medical Society at Galveston, January 3: president, Dr. W. F. Starley; secretary-treasurer, Dr. W. C. Fisher, Jr., both of Galveston (reelected).——North Texas District Medical Association at Dallas, December 12: president, Dr. Martin E. Taber; secretary, Dr. H. Leslie Moore, both of Dallas.——South Texas District Medical Association at Houston, December 12-13: president, Dr. John H. Foster; secretary-treasurer, Dr. E. F. Cooke, both of Houston. Galveston was selected as the next meeting place.——Fifth District Medical Association of Texas at San Antonio: president, Dr. C. C. Jones, Comfort; secretary, Dr. J. A. McIntosh, San Antonio.——Harris County Medical Association at Houston, December 20: president, Dr. S. M. Lister; secretary, Dr. E. L. Fox, both of Houston.

GENERAL

Infectious Diseases.—No notable changes with reference to epidemic infectious diseases have taken place during the past week. There seems, however, to be a rather wide-spread prevalence of these diseases in many localities. The meningitis situation in the area centering in Memphis is somewhat improved.

Hospital Ship for Fisheries.—A model has been made of the proposed hospital ship which the United States Public Health Service is endeavoring to secure to patrol the fishing grounds for the benefit of sick and injured American fishermen. It is to be a two-masted schooner, about 100 feet long. A bill is under consideration in Congress for an appropriation for its construction.

Eye and Ear Specialists Organize.—On January 7, the Louisville Eye, Ear, Nose and Throat Society was organized by eye and ear specialists of Louisville, Ky., and New Albany and Jeffersonville, Ind., with an initial membership of fifteen. Dr. Adolph Pfingst, Louisville, was elected president; Dr. W. J. Leach, New Albany, vice-president, and Dr. J. R. Peabody, Louisville, secretary-treasurer. The meetings are to take place the second Thursday of each month.

Personal.—Colonel William C. Gorgas and Major Robert E. Noble, M.C., U. S. Army, sailed from Guayaquil, Ecuador, December 24, arrived at the Panama Quarantine Station, December 28, and were released from quarantine three days later.——Dr. and Mrs. Louis Schapiro have started for their new home in Bontoc, P. I.——Dr. Willard D. Bigelow has been appointed a member of the board of food and drug inspection, vice Dr. R. E. Doolittle, resigned.

Bequests and Donations.—The following bequests and donations have recently been announced:

Montefiore Home for Chronic Invalids, New York City, $5,000, by the will of Florence Phillips.

Policlinic Hospital, New York City, $5,000, by the will of Mrs. Magdalena Hermann.

S. R. Smith Infirmary, New Brighton, S. I., $35,000, by the will of Emil F. Kipper, should Lucy I. Kipper die without issue.

New York Orthopedic Dispensary and Hospital, about $10,000, the proceeds of a concert recently given at the Waldorf Astoria.

Episcopal Hospital, Philadelphia, about $30,000, by the will of Eliza M. Fagan, contingent on her son's death without issue.

Rush Hospital for Consumptives, Philadelphia and West Philadelphia Hospital, each $5,000, by the will of Louise Laipple.

Syracuse (N. Y.) Hospital Relief Fund, $200,183.24, by subscription.

Holyoke (Mass.) City Hospital and House of Providence Hospital, Holyoke, the proceeds from the sale of a house and lot of the late George H. Munger.

Children's Free Hospital, Detroit, $5,000, from E. C. Walker and J. Harrington Walker, Walkerville, Ontario.

New Haven Hospital and Grace Hospital, New Haven, each $10,000, by the will of Amelia Lee Benedict, for free beds to be named after the heirs of the testatrix.

Samaritan Hospital, Troy, N. Y., bequests and specific legacies which will amount eventually to more than $100,000, by the will of Mrs. Charles B. Knight; $50,000 for a power and laundry building, donation by F. H. Peabody, and $50,000 for the erection of a building in memory of Mr. H. Van Schoonhoven, by Mrs. Elida Van Schoonhoven; $20,000 donations, each by Robert B. Cluett and George B. Cluett.

St. Elizabeth's Hospital, Elizabeth, N. J., $15,000, donation from the heirs of James McGuire.

Schenectady Hospital Association, $20,000, by the will of Mary F. Willard.

New York *Tribune* Fresh Air Association, $50,000, by the will of Whitelaw Reid.

Massachusetts General Hospital, Boston, New England Hospital for Women and Children, Roxbury, Children's Hospital, Boston, and Massachusetts Charitable Eye and Ear Infirmary, each $5,000, by the will of Mrs. Caroline B. Allen, Dorchester.

German Hospital, Philadelphia, and Burlington County (N. J.) Hospital, each $5,000, and for the foundation of a new hospital in Riverside, $250,000, by the will of Theophilus J. Zurbrugg, Riverside.

Champlain Valley Hospital, Plattsburg, N. Y., will soon receive $200,000 endowment, by the late Loyal L. Smith.

Methodist Hospital, Philadelphia, $8,000, to endow two beds for children to be known as the Emmaretta McKinley beds, and $5,000, to endow an adult's bed; Charity Hospital, Norristown, $5,000, to establish a ward for destitute children, by the will of Emmaretta McKinley.

Jewish Hospital, Philadelphia, a contingent bequest of $5,000, by the will of Mrs. Isabella Steppecher.

Solomon and Betty Loeb Home for Convalescents, New York, $250,000, subject to the life interest of his widow, by the will of Prof. Morris Loeb.

Presbyterian Hospital, Philadelphia, was given about $318,000, December 10, by the Pennsylvania Company for Insurance of Lives and Granting Annuities, as its share in the residuary estate of the late Lady Martha E. Kertright of England.

Maternity Hospital, Albany, N. Y., a donation of $150,000, by Anthony N. Brady.

University of Pennsylvania, $50,000, for the building of two dormitories, to be called Cleeman Halls, by the will of Dr. Richard Alsop Cleeman.

Brooklyn Home for Consumptives, $10,000, by the will of J. Walter Gauz, Vineland, N. J.

Cedar Falls, Iowa, City Hospital, $25,000, for a site and construction of a building, a donation by Joseph Sartori.

Amsterdam (N. Y.) City Hospital, $6,000 and a deed of property amounting to about $4,000, by William McCleary.

Central Maine Association for the Relief and Control of Tuberculosis, $5,000, donation of Mrs. Valora A. Chase of Waterville.

Presbyterian Hospital, Philadelphia, $5,000, by the will of Elizabeth Norris Brown.

St. Mary's Hospital, Brooklyn, a donation of $100,000, by Mr. and Mrs. James Shevlin, in memory of Bishop Laughlin.

FOREIGN

Rebuilding of International Hospital at Kobe, Japan.—The International Hospital at Kobe is to be rebuilt. A piece of land on the bank of the Waterfall stream, not far from the Kobe middle school and near both the Hill and the Settlement, has been purchased and we are told that on the site it is proposed to erect a modern model hospital building.

Railroad Hospital in Mexico.—The National Railways of Mexico have definitely decided to erect a hospital for the benefit of their employees and work will commence at once. The hospital will be erected on lands belonging to the company near Popotla, a suburb of Mexico City. It will be equipped with all modern conveniences and it is expected that its two wards will have a capacity for 150 patients (*Consular Reports*, Dec. 25, 1912.)

Another Hospital for Bangkok.—The king of Siam has recently purchased a large building, known as the Himapan Park, with extensive gardens, in the northern part of Bangkok and presented it to the city for hospital purposes. The cost of the place has been given as $88,800, according to the report of Consul S. L. Crosby. The work of construction is now in progress, the funds for which, as well as for the maintenance of the hospital will be furnished by the king.

Intercollegiate Gathering of Students in South America.—The third biennial "congreso de estudiantes americanos" was held at Lima, Peru, recently. The preceding ones met at Montevideo and Buenos Aires. Among the subjects discussed at the meeting were "Preliminary Education;" "Empiricism in the Professions;" "Participation of University Students in Political Life;" "Hygiene at Universities;" "Training for University Professors," and, last but not least, "Means to Render Effective the Resolutions Passed by the Congress." The gathering, it is stated, represented the youth of eighteen nations. The medical departments sent many delegates and Dr. E. Odriozola addressed the congress on Peruvian verruga or Carrion's disease, relating the story of Carrion's devotion to science.

Honors for Baccelli and Freund.—The eightieth birthday of Guido Baccelli, professor of clinical medicine at the university of Rome and the leading statesman of Italy, is approaching and his friends are soliciting subscriptions to present him with some souvenir worthy of the occasion. Subscriptions can be sent to the Associazione della stampa, Piazza Colonna, Rome. He has kept up his clinical teaching, the faculty refusing to accept his recent resignation but granting him leave of absence with the right to appoint a substitute in his place.——W. A. Freund's eightieth birthday will arrive Aug. 26, 1913, and a number of his former pupils have issued an appeal to friends to rally to do honor to the man who conferred on humanity the boon of hysterectomy for uterine cancer. According to the total amount of the subscriptions received, it is proposed to endow a research fund at the university of Strasburg or instal a bust or tablet in the clinic where he has worked for so many years. Contributions should be sent to Professor Klein, Neu Kirchgasse 1, Strasburg, Germany.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, Jan. 11, 1913.

The National Insurance Act

The failure of the policy of the British Medical Association to prevent the working of the insurance act except on the terms laid down by it was indicated in my last letter. It now appears that 15,000 physicians (more than half those available) have gone on the panels from which insured persons can choose their medical attendant. There are only a few districts in the country in which there is now any difficulty in forming a panel. Where the physicians were recalcitrant the threat of the government to introduce outside men proved s ifficient. In London the opposition is stronger and more ob.tinate than in other places and only 759 out of the 7,000 physicians have gone on the panels. This allows an average of one physician to every 2,000 insured persons, a number which is not excessive. But in some districts of London there is only one physician to over 3,000, and, in one, to 5,000 insured persons. The act has aroused very bitter hostility in the profession and London, and independently of the British Medical Association, a strong organization has been formed to resist it. Meetings of physicians are constantly being held, and those engaged in organizing have so much work thrown on them, in addition to their ordinary professional duties, that they have to work far into the night. An attempt is being made to organize a system of medical benefit on lines more agreeable to the profession than the insurance act. The idea is to take advantage of the section of the act which allows an insured person under certain circumstances to "make his own arrangements" for medical benefit and receive as a contribution toward paying for it his capitation grant. It is hoped that if the majority of the physicians keep off the panels the "free choice of doctor" provided by the act will become a farce and the insured in their own interest will demand to be allowed to make arrangements by which they can have "their own doctors." The opposition press have taken up the agitation, and "sandwich men" are parading the streets carrying boards bearing the legend "Insist on having your own doctor." The government, however, takes the view that "free choice of doctor" means free choice of the physician on the panels and says that the making of their own arrangements by the insured is not right, but only a thing which the insurance commissioners may, for special reasons, grant or not as they see fit, and that they will not allow the machinery of the act to be broken down in this way. In London, a large meeting of physicians was called to discuss the following resolution: "We protest against the unfair methods of intimidation employed by the chancellor of the exchequer, Mr. Lloyd George, for the purpose of coercing medical practitioners to serve on panels under the insurance act, and are convinced that these methods cannot result in a service satisfactory to the insured persons." Sir Thomas Crosby, ex-Lord Mayor of London, who has been for sixty years a general practitioner, presided. About 2,000 physicians attended and the proceedings were most enthusiastic. Mr. E. B. Turner, member of the state sickness insurance committee of the British Medical Association, moved the resolution in a speech of great bitterness. He was filled with a sense of deep shame and humiliation that a gathering of a scientific and learned profession should find it necessary to impugn the conduct of a minister of the crown. The insurance act was obnoxious to the great majority of the profession and ruinous to many. Some of the most reasonable demands of the profession had been refused, not because refusal was just or right, but as a matter of political expediency. A policy of intimidation, misrepresentation and falsehood had been pursued in the press in order to induce physicians to join the panels. "Passing over all, like a malign comet, was the chancellor of the exchequer himself with a daily lengthening tail of inconsistent statements, repudiated utterances and promises unfulfilled, both to the profession and to the insured." The resolution was carried unanimously.

The final decision of the British Medical Association to reject the insurance act can be described only as a disastrous failure. The situation is well summed up in an editorial in the *Lancet*: "A year ago the policy of the British Medical Association was to a large extent shaped by a council favor-

ably inclined toward the act and optimistic as to the future of the medical profession under it. Now the machinery of the association is almost entirely controlled by members who take an exactly opposite view." When the act was introduced it contained many defects which made it obnoxious to the profession. These have been considerably diminished, though some still remain. Many physicians while not considering the act perfect, considered that the government had made a fair offer. Hence the beginning of the schism in the association, which rapidly developed when men found themselves confronted with loss and even ruin if they refused to work the act. But all through the latter part of the struggle bitter denunciation and implacable hostility were in evidence at the local and central meetings of the association. The extreme party naturally thought they had the whole association and practically the whole profession with them, and that if they gave the signal to refuse to work the act it would have been impossible for the government to find physicians to do so, and therefore their terms would have been granted. The result is that the physicians who have been loyal to the pledge not to work the act unless except on terms approved by the association, have suffered loss. It would have been a much wiser policy to accept the act under protest and preserve the unity of the association and the profession for the purpose of securing the necessary reforms, the nature of which will be more accurately shown by the actual working of the act.

[The cable brings word, January 19, that the council of the British Medical Association decided to release its members from their pledge not to work under the national insurance act.]

Important Discovery in Tropical Medicine: Metamorphosis of Filaria Loa

An important discovery in tropical medicine has been made in West Africa by Dr. R. T. Leiper, Wandsworth scholar of the London School of Tropical Medicine. He has found that the metamorphosis of *Filaria loa* takes place in the salivary glands of a fly belonging to the genus *Chrysopa*. This discovery is important, because of the large number of Europeans who become infested with this worm in West Africa. The effects are rarely fatal, but the worm travels under the skin and sometimes under the conjunctiva. The commonest result is the so-called "Calabar swelling," due to the worm's migration in the deeper parts of the limbs—in the muscles and around the tendons. In consequence of Dr. Leiper's discovery, it is hoped that the condition in which infection takes place will be determined and infection thus prevented. The members of the genus *Chrysopa* are day-biting flies and are widely distributed not only in the tropics, but also in temperate climates. The embryos of *Filaria loa* are found in the blood during the day, which is in keeping with the discovery that the disease is due to a day-biting insect. On the other hand, the embryos of *Filaria bancrofti*, the cause of elephantiasis, are found in the blood only during the night, which led Manson to the conclusion that the disease was due to a nocturnal-biting insect. The Wandsworth scholarship, the income of which enabled the London School of Tropical Medicine to send Dr. Leiper, their helminthologist, to investigate the life history of *Filaria loa* and other blood-worms, was placed at the disposal of the school about six months ago.

An International Medical Exhibition

In connection with the forthcoming International Congress of Medicine to be held in London, and recently referred to in a previous letter (THE JOURNAL, Dec. 21, 1912, p. 2269), a medical exhibition is being organized which, it is said, will be the most representative professional exhibition ever held. It will exemplify (1) hospital design, construction, arrangement and equipment; (2) surgical and medical instruments and appliances; (3) sanitary and other appliances for the ward and sick room; (4) pharmaceutical preparations, chemicals, disinfectants and dietetic articles; (5) microscopes and all other apparatus used in pathology, bacteriology and other investigations or in clinical instruction; (6) appliances for the treatment of the sick and wounded in war and emergency aids for street accidents and industrial disasters; and (7) carriages and other personal requirements in professional practice. The exhibition will be held in the great hall and the two minor halls of the University of London. The committee will grant awards for the best exhibits in each section.

Remarkable Health Figures of the British Army in India

The health of the British troops in India has now reached such a standard that the sickness is officially described as the lowest humanly possible of achievement. The figures for the last twelve months are the most favorable ever recorded; sickness was only one-half of the 1905-to-1909 average and invaliding two-thirds. Medical research into tropical diseases is mainly responsible for this result. The notable features are the drop in the cases of typhoid fever and malaria. Inoculation against typhoid fever is responsible for the decline of this disease. The health of the European soldier in India is now approximating that at home; thus the ratio of constantly sick per 1,000 in India was 28.8, while at home it was 20. A few years ago the figure for India was 90.

Increased Facilities for Divorce

Divorce is a much more difficult thing to obtain in England than in the United States and is so expensive as to be practically within the reach of only the rich. An American wit in this country once said "Divorce with you is a luxury, with us it is a necessity." Certain reformers have been for some time advocating increased facilities for divorce, so as to bring it within the reach of the poor, who often suffer great hardships in consequence of the present state of the law. A royal commission, consisting of Lord Gorell, chairman (late president of the Divorce Court), Sir Frederick Treves, Mr. Thomas Burt (a labor member of Parliament), the archbishop of Canterbury and others, was appointed in 1909 to inquire into the present state of the law and its administration in divorce and matrimonial causes, and its applications for separation orders, especially with regard to the poorer classes. The report has just been issued. On some important points the commission has been unable to agree. This is mainly due to the ecclesiastical objections of a minority led by the archbishop. The majority recommend a considerable extension of the grounds for divorce. Thus at present only the husband can obtain a divorce on the grounds of adultery; for the wife to obtain divorce the adultery must be combined with cruelty. The commission recommends that whatever grounds are permitted the husband for obtaining a divorce should also be available for the wife. The majority recommend that the law should be amended so as to permit of divorce being obtained on the following grounds: (1) adultery; (2) desertion for three years; (3) cruelty; (4) incurable insanity after five years' confinement; (5) habitual drunkenness found incurable after three years; (6) imprisonment under commuted death sentence.

GROUNDS OF NULLITY

The following grounds for pronouncing a decree of the nullity of marriage are recommended: (1) when the other party is of unsound mind at the time of marriage or in a state of incipient mental unsoundness which becomes definite within six months after marriage, of which the first party was then ignorant, provided that the suit be instituted within one year of the marriage and that there has been no sexual intercourse after the discovery of the defect; (2) when the other party is at the time of the marriage subject to epilepsy or recurrent insanity and such fact is concealed from the first party, who remains ignorant of the fact at the time of the marriage, with a similar proviso to that mentioned in the previous case; (3) when the other party at the time of the marriage is suffering from venereal disease in a communicable form and the fact is not disclosed to the first party who remains ignorant of the fact at the time of the marriage, with a similar proviso to that mentioned in the first case; (4) when a woman is found to be pregnant at the time of marriage, her condition being due to intercourse with some other man than her husband and such condition has not been disclosed to him, with a similar proviso to that mentioned in the first case.

There are 150,000 registered insane persons in the United Kingdom, of whom about 70,000 are married. It is estimated that if insanity becomes a ground for divorce about 41,000 married persons would be affected. Of the 150,000 insane about 50,000 are the subjects of incurable secondary dementia; 35,000 are congenitally feeble-minded, while 20,000 are the subjects of alcoholic dementia. In the total number there are only about 1,000 with recurrent insanity, of whom 500 may be assumed to be married. About two-thirds of the inmates of asylums may be regarded as incurable and about 98 per cent. of the recoveries take place within five years.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, Jan. 3, 1913.

The Law and the Sale of Poisons

Public interest has been aroused by the death from morphin of a young professor of literature. Investigation shows that the morphin habit is making considerable inroads in certain

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intellectual circles, especially among young poets and literary men. While morphin is the favorite drug in the Latin quarter, cocain has many victims among the demi-monde of Montmartre, where the night restaurants are frequented by dealers who sell little boxes of cocain at two francs a gram. The French law, to be sure, has placed certain precautions about the sale of poisonous substances. According to the law of 1845 poisons can be sold only on the prescription of a physician or a veterinary and, in certain strictly defined cases, of dentists and midwives. The prescription must be signed and dated, and must specify the dose and method of administration. Dealers in chemical products, industrial or others, can deliver poisons only after having received authorization and only to chemists, manufacturers, etc., duly authorized to use them. Inspectors visit drug-stores and the shops and warehouses of dealers and manufacturers unexpectedly in order to ascertain if these regulations are complied with. Unfortunately these precautions are insufficient to prevent the unauthorized sale of poisons. The prefect of police has just called the attention of the inspectors of drug-stores in the Department of the Seine to the cases of druggists who sell to the public without medical prescription, often under the form of specialties, tablets or ampules containing poisonous substances such as morphin hydrochlorid, cocain, heroin, opium, etc. The prefect maintains that this sale constitutes a violation of the law even if the substances are presented under the form of specialties. As for the sale of poisons without sufficient control, the commission appointed to revise and complete the regulations for the sale of poisonous substances is about to require special accounting from every pharmacist for the purchase and sale of morphin and cocain, like that required for the purchase and sale of opium under the decree of 1908. Many poisons are sent in from abroad. Chemical houses send packages containing morphin or cocain in by mail under the guise of harmless samples. The same commission proposes to render it obligatory to declare the nature of the contents of such parcels.

The Institute of Infantile Hygiene and the Public Charities

The general administration of the public charities has protested against the creation of the Institut de puériculture at the Hospice des Enfants-Assistés under the direction of Dr. Variot (THE JOURNAL, Jan. 28, 1911, p. 283, and June 24, 1911, p. 1892) as an autonomous service to the disadvantage of the medical services, which might with equal justice demand to be made autonomous likewise. The government has recognized the justice of the complaint, and has annulled the action of the prefect of the Seine on the ground that the latter has no power to interfere with the work of the director of the public charities of Paris.

Ambulance Dogs

The experience of recent years has shown that in spite of the improvement of the army hospital corps, the number of wounded who are abandoned tends to increase. This is due to the tactical demands of modern warfare, which require combatants to shield themselves behind natural and artificial shelters, and to the necessity that the litter-bearers should not proceed to the relief of the wounded until night, during the short truce made by darkness during battles several days long. If, moreover, the litter-bearers use any kind of artificial light they furnish a target for the enemy. Such considerations have led to the use of the dog in the search for the wounded. In a previous letter (THE JOURNAL, Aug. 26, 1911, p. 751) I mentioned the method used, which has given uniformly satisfactory results. It has had the highest development in Germany. The idea originated in 1885 and has rapidly developed so that private societies and sanitary organizations could now put into service 2,000 dogs with their equipment. In France there was founded in 1908 under the initiative of Captain Tolet a Société nationale du chien sanitaire. The minister of war is considering the organization of such a service in the army. However favorably the idea may be received by the army medical service, and however liberal may be the provision for it by the government, the number of sanitary dogs possessed by the army itself will be very much below the needs of a European conflict. It would seem desirable to form an auxiliary contingent of dogs ready to be put into service of the army hospital corps at the opportune moment, as branches of the Red Cross are organized to give assistance to the wounded in time of war. The Société nationale du chien sanitaire has therefore encouraged the training and equipment of dogs by private persons. Among the advantages of this arrangement would be the avoidance of the danger of epidemics among the dogs and the placing of these dogs at distant parts of the country where they may familiarize themselves with the topography.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, Dec. 27, 1912.

Personal

Professor Ponfick, director of the pathologic institute at Breslau, will resign his position on April 1.

The Campaign Against Cancer

A proprietor of a fine arts establishment in Nuremberg has donated $12,500 (50,000 marks) for the furtherance of scientific investigation and extermination of cancer. The income is to be given each year as a prize for important service in this field in Germany. This service should be, as a rule, performed not earlier than about a year before the prize is awarded, and must represent some advance in scientific research or in prevention and treatment of cancer. The foundation will be under the management of the Nuremberg municipality. Besides the donor, the judges will be the mayor and the first district physician of Nuremberg, the director of the local municipal hospital and the dean of the medical faculty of the university of Erlangen, or another member of the faculty.

Influence of School Life on Fitness for Military Service

At the joint session of the German association for public hygiene and the Berlin society for school hygiene, the question was discussed as to the influence of the upper school grades on military efficiency. As a basis for their argument, surgeon-major Professor Schwiening and Dr. Nicholai referred to an investigation of records of 52,650 volunteers for one year in the period of 1904-06. Among these recruits, half of whom received their education in high schools and colleges, there were 65 per cent. eligible against 55 per cent. unfit. The most unfavorable conditions were found among the students from the gymnasiums and realgymnasiums, and these are followed by the realschulen, seminars and agricultural colleges. It is evident that fitness for military service decreases as the years spent in school increase; on the other hand, the unfavorable influence of the school grows less evident the longer the interval between leaving the school and entering the army.

CAUSES OF INELIGIBILITY

So far as the special cause for the unfitness is concerned, 33 per cent. of the unfit suffered from general physical debility. Diseases of the heart, lungs and nerves were more frequent among those unfit for military service than among those who are fit, while among the latter severe diseases of bones and joints, hernia and flat-foot are more prevalent. Here again the unfavorable conditions increase with the number of the years spent in school. However, it is to be considered that students attending gymnasiums come mostly from families which have for many years been identified with sedentary pursuits.

NEEDED REFORMS

While the schools are not altogether to blame for these unfavorable conditions, improvements are necessary in order to secure a better physical development. In addition to gymnastic work, games and other physical exercises in the open air should be considered, but these should not degenerate into competitive athletics with its overtraining and its attempts to beat the record. If pupils begin to practice such games already in the school, they will continue them after leaving school and thus the injurious influences of professional training will be avoided.

SCHOOL LIFE AND VISION

From the standpoint of the oculist, Surgeon-Major Nicholai discussed the injurious influences of the school, which have been known for more than a hundred years, but were first brought to general notice by the investigations of Hermann Cohn of Breslau. Compared with the essential diseases of the eye, functional disturbances on account of anomalies of refraction play a much greater rôle, as has been shown by many examinations of pupils in the last decades. The disturbances of vision increase from the primary school to the high schools and proportionately with the grade. Although the latest investigations of pupils have given somewhat better results, yet the conditions are still far from satisfactory. Among the 52,650 one-year volunteers, there were 10.3 per cent. unfit on account of defective vision, which defect takes the third place after general physical debility (36.4 per cent.), and heart disease (14.7 per cent.) Here again the highest percentage was furnished by the gymnasiums, with 47.8 per cent., while the seminars followed with 35.4 per cent. The longer the attendance at school, the more unfavorable the findings. They improve two to three years after leaving school, and later become worse again on account of the work for examinations

and the professions. During the time of service there often occurs marked improvement in the acuity of vision, when the anomalies of refraction have been corrected by proper glasses. A third of all the eye defects are due to myopia, in which the gymnasiums again take the first place. There were 1.7 per cent. of ineligibles on account of short-sightedness. The provinces of Westphal and Schleswig-Holstein furnished the fewest short-sighted persons, and Saxony and Berlin the most. Among European states, Germany occupies the most unfavorable position, with 38 per cent. of myopics, as compared with 14 per cent. in Switzerland and 12 per cent. in England and France. Assuming that the standard of examinations is the same, either the hygienic conditions in our schools must be inferior or much greater requirements are placed on the pupils. A distinction should be made between ordinary school myopia, which is caused by too strenuous school work, and the progressive form, depending on a hereditary taint, which leads to higher grades of short-sightedness and even to blindness. Both forms are avoidable, but the question of prophylaxis is still unsettled. Large numbers of statistics collected by school physicians on a uniform basis are needed, and for this special courses on diseases of the eye must be provided. The eyes must be examined on the entrance of school and constant supervision of pupils with defective vision must be exercised, the amount of work at home should be diminished, afternoon study discontinued, less work in writing must be required and a longer stay in the open air in play and sports is necessary, and the parents must be instructed as to unsuitable conditions at home, which are often to blame for much of this evil. To this must be added a supervision of the young people after leaving school until they have entered on their business career or chosen proper professions. There should be legal regulation of this matter in order to secure better conditions in regard to vision, which is of the greatest importance not only for the military service, but for the prosperity of the entire nation.

Official Investigation of the Reduction in the Birth Rate

As I reported some time ago, the Prussian government has instituted a collective investigation to be conducted, among other agencies by the medical chambers, on the cause of the reduction of births in Germany. The medical chamber of Saxony is the first one to express its opinion, which is as follows: There are no indications of a decline in fertility. The reduction in births is not limited to certain classes of the population. It does not depend on unfavorable hygienic conditions, although a certain influence of the spread of venereal diseases is possible. The reduction depends on a voluntary limitation of the number of children. This old custom among the peasantry has been introduced in late years also in the other classes of population. Comfort, luxury and love of pleasure are the main causes of this with which go the fear of interruption of the earning capacity and often the desire to keep the inheritance intact, and probably also the higher cost of living and confined living quarters. Neomalthusianism plays scarcely any rôle in the reduction of the birth rate, but advertisements and display of means for preventing conception certainly cooperate, as also the lectures held by the nature-cure societies.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, Jan. 4, 1913.

Austrian Statistics of Births and Deaths

The Austrian Central Committee for Statistics has just published part of the results of the last census taken two years ago, dealing chiefly with the first decade of this century. The number of marriages has increased, but not in proportion to the increase of population. The number of children born living has decreased absolutely; this is observed in numerous other countries, too. In 1910 alone there were 25,000 births less than the year before. The number of deaths also decreased, a welcome proof of the improvement of hygienic conditions. Austria, with its 30,000,000 inhabitants, stands between Hungary and Germany as regards the fall of the birth-rate and death-rate. It is interesting to note that the number of births increases more and more as one goes southward. In the extreme south where mostly Slavic nations live, there is an absolute and continual increase in the number of births, while in the intellectual and industrial centers and in the various capitals of our provinces it is continually falling.

Conflicts in Regard to Contract Practice

Ever since the radical change of the conditions of living has made itself felt in this part of Europe, the relations between the Krankenkassen or sick-benefit clubs and their appointed physicians have been far from peaceful. Owing to the fact that these clubs are the result of a rather antiquated national insurance law which is no longer adapted to modern conditions of life, the physicians have been rather handicapped in their fight. But now an organization of medical men has been effected after very hard struggles, and about 90 per cent. of all practitioners in the larger towns and important rural districts of the chief provinces belong to it. Every now and then a local conflict has arisen, mostly from petty reasons, and has been temporarily allayed. But now the sick-benefit clubs also have united into one powerful corporation, the Verband der Krankenkassen. This club has about 500,000 members and about 500 physicians. The membership is compulsory, at present, for all who are wage-earners, without regard to the size of salary, according to the law. The profession is now endeavoring to secure a new law, restricting compulsory membership to a yearly income of $600; it also supports every boycott of an appointment to a sick-benefit club, if the conflict has arisen from the demand of the physician for better payment or for ethical reasons. At present over 120 physicians have given notice to the Verband that they will no more serve on the old terms, and newcomers are kept away effectively by the organization. The terms still in force work out a ridiculously low remuneration in many instances, 4 to 6 cents for a consultation in the physician's office, and the amount of administrative work is so pressing that a good deal of the physician's time is taken up by it. The physicians demand either a fixed fee of about 20 cents per consultation in the office or the free choice of physicians at reduced private rates. The conflict is at present *sub judice;* the Verband has not accepted the notification of resignation of the appointments and claims damages from the physicians. But it seems that, however this litigation is settled, the position of the clubs is untenable in consequence of the united resistance of the profession. In one town the actual strike of the physicians has forced the sick-benefit club to come to reasonable terms. This victory will prompt the profession to hold out until the battle is won everywhere.

Miscellany

College Athletics in After-Life.—In answer to the question "Does the physical training of the college athlete better fit the business or professional man for his after-life?" Harlow Brooks, in a paper read before the New York Medico-Surgical Society, says that he has had frequent opportunity to test this question during a period of fifteen years. As medical officer of a regiment of the national guard composed largely of ex-college men, he has had opportunity to examine them and to oversee their military work anywhere from five to fifteen years after they have left college. During one year he examined in this organization twelve different men, all at one time famous as college football players, six of them captains of their teams. These men were subjected to the same work and the same physical tests as men who had passed through their college course without particular athletic distinction or who had never been in college. Of these twelve famous athletes only one could be rated physically up to the average of the men of his own age. This one subsequently died in the early thirties of diabetes mellitus. Brooks says that similar conditions obtain with regard to men who were active in other college sports, and that the defects become even more marked in trackmen and in oarsmen particularly, but appear in the least degree in baseball players. He says that the experience of other physicians connected with athletic clubs is similar to his and that the distinguished college athlete after ten years of severe business life is below the average man physically, and also in the measure of his resistance against disease. He may even fall below the level of the entirely non-athletic man. The defects, as Brooks has observed them, are confined chiefly to lesions or disturbances of the heart and other circulatory organs, to adiposity or to joint-disease. Brooks attributes this largely to the fact that these athletes, when they engage in business, must largely give up their athletic exercises, and it is the law of physiology that a useless tissue deteriorates rapidly.

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The physical descent of the crack college athlete, Brooks believes, is much more rapid than that of the purely untrained man who has exercised during his youth for pleasure or for benefit alone and who has had no records to maintain.—Harlow Brooks in *Am. Pract.*

Breast-Nursing, Nasal Obstruction and Orthodontia.—The relation of breast-nursing and consequent perfect nutrition in early infancy to proper facial development and the prevention of nasal obstruction is one to which more attention might profitably be paid. W. H. Haskin (*Laryngoscope*, November, 1912, p. 1237) calls attention to this subject and shows that proper early attention by the rhinologist and the orthodontist may obviate many serious developmental defects about the head and face which will not only make better-looking persons but will vastly improve the development and the health of the whole organism. Haskin calls attention to the fact that mouth-breathing with defective chest development, facial asymmetry, impacted teeth and nasal obstruction, and even, according to W. F. Daly, a train of ills in the eye and its adnexa, such as the various heterophorias and anomalies of muscular dynamics, with resultant loss of vision in one eye in many cases, all may be the result of mouth-breathing due to adenoids. The adenoids, in their turn, are due to defective nutrition on account of artificial feeding or deficient breast-nursing. The moral which Haskin draws is that physicians should pay more attention to prenatal and postnatal conditions, the latter including breast-feeding and the earliest tendencies toward mouth-breathing. Adenoids which have developed through faulty nutrition should be removed, and defects in the development of the dental and palatal arches attended to. Deviations of the nasal septum, Haskin shows, are due to impacted teeth and defective development of the dental arches and, as he demonstrates by illustrative cases, these defective nasal septa may be corrected by spreading the dental arch and other orthodontic treatment to secure proper dental occlusion and straightening up of the teeth. These effects may be produced even after the eruption of the second set of teeth has been partially completed. The improvement of features by the plastic work of the orthodontist is sometimes really remarkable, and the possibilities in this direction should be a sufficient encouragement to parents to have their children looked after in this respect even though no serious detriment to the development of the child otherwise has occurred on account of deflected septa, impacted teeth, malocclusion, etc. The theory of Haskin, which he seems to substantiate in his paper, that most of this defective development is dependent on a lack of maternal nursing, is highly interesting and important.

Marriages

CHARLES GLENN BAIRD, M.D., Mount Vernon, Iowa, to Miss Margaret Mary Blythe of Williamsburg, Iowa, December 31.

RODERICK GAMBRELL LANDER, M.D., Lone Oak, Texas, to Miss Mary Elizabeth Ford of Dallas, Texas, January 1.

RAYMOND C. CREASY, M.D., Wilkes-Barre, Pa., to Miss Leonore A. Waldon of Philadelphia, January 3.

HARDY LEWIS MCCUBBIN, M.D., to Mrs. Cora A. Cooper, both of Turlock, Cal., in San Francisco, December 31.

HENRY P. LINNER, M.D., Minneapolis, to Miss Amanda E. Anderson of Ishpeming, Mich., December 31.

JOHN M. MALLOW, M.D., Lebanon, Texas, to Miss Edna Covington of Frisco, Texas, December 18.

WILLIAM K. RUBLE, M.D., Martinsville, Ohio, to Mrs. Stella West of Wilmington, Ohio, December 24.

DAVID C. PIERPONT, M.D., Ironwood, Mich., to Miss Anna Heller of Menominee, Wis., January 4.

MOSES J. FINE, M.D., New York City, to Miss Lillian G. Eiddelman, in Brooklyn, December 31.

DANIEL L. SCANLAN, M.D., Volga, S. Dak., to Miss Dahl, in Minneapolis, December 31.

LOUIS SCHAPIRO, M.D., Bontoc, P. I., to Miss Matie Meyer of Chicago, December 26.

Deaths

Nelson Asath Drake, M.D. Rush Medical College, Chicago, 1868; a member of the American Medical Association; ex-president of the Jackson County Medical Society; a member of the American Association of Railway Surgeons; a member of the surgical staff of the University Hospital, Kansas City, Mo., and of the consulting staff of the German Hospital; local surgeon for the Rock Island System; a veteran of the Civil War; one of the founders, and for a time editor, of the Kansas City *Medical Index*; died at his home in Kansas City, January 9, from nephritis, aged 70.

Hugo R. Arndt, M.D. Cleveland University of Medicine and Surgery, 1869; of Cleveland; formerly professor of materia medica in the University of Michigan Homeopathic College, Ann Arbor, and of theory and practice of mental and nervous diseases in the Hahnemann Medical College of the Pacific, San Francisco, field secretary of the American Institute of Homeopathy and editor of the *Homeopathic Journal;* died in the Huron Road Hospital, Cleveland, January 2, from pneumonia, aged 66.

William Warner Hoppin, M.D. College of Physicians and Surgeons, New York City, 1864; assistant surgeon of volunteers during the Civil War; a practitioner of law since 1889; from 1877 to 1891 a trustee of his alma mater; formerly a member of the board of governors of the Woman's Hospital in the State of New York and at the time of his death one of the governors of the New York Hospital; died at his home in New York City, January 3, aged 74.

Benjamin Franklin Kierulff, M.D. Rush Medical College, 1867; a surgeon in the Franco-Prussian War; formerly local surgeon of the Chicago and Northwestern system at Marshalltown, Iowa; surgeon of the Second Brigade, Iowa N. G.; consulting oculist and aurist to the Emergency Hospital, Eldora; died at his home in Los Angeles, January 4, from intestinal disease, aged 73.

Matthew Marvin, a matriculant of Rush Medical College in 1847, and a practitioner of Warren and Galena, Ill., for ten years or more; thereafter an attorney; who had served as county judge in Jo Daviess and Stephenson counties, Ill., and as city attorney of Freeport for ten years; died at his home in that city, December 11, from senile debility, aged 91.

Robert Eddy Bell, M.D. New York University, New York City, 1883; a member of the American Medical Association; a surgeon of volunteers during the Spanish-American War with service in Cuba; prominent in the organization of the ambulance corps of the Massachusetts Volunteer Militia; died at his home in Lowell, January 4, aged 52.

Edward K. Shirley, M.D. Homeopathic Medical College of Missouri, St. Louis, 1883; aged 57; a member of the Illinois State Medical Society; of White Hall; slipped and fell on an icy sidewalk, January 10, and while unconscious from the fall, rolled from the sidewalk into the gutter and drowned in the water standing there.

Raymond H. Pillow, M.D. Jefferson Medical College, 1876; a member of the American Medical Association and Baltimore and Ohio Association of Railway Surgeons; local surgeon at Butler, Pa., for the Baltimore and Ohio system; died at his home, January 10, from secondary processes incident to cerebral hemorrhage, aged 59.

Willard Ide Pierce, M.D. New York Homeopathic Medical College, 1891; professor of materia medica in his alma mater; a member of the New York Academy of Pathological Science, and visiting physician to the Flower Hospital; died suddenly at his home in New York City, January 8, from heart disease, aged 56.

William Louis Rabe, M.D. Rush Medical College, 1866; a member of the American Medical Association, Illinois State Medical Society and Livingston County Medical Society; also a graduate of McCormick Theological Seminary, Chicago; died at his home in Dwight, Ill., January 13, from pneumonia, aged 73.

Ianthus Clyde Perkins, M.D. Hospital College of Medicine, Louisville, Ky., 1905; a member of the Kentucky State Medical Association; a practitioner of Grant; who was obliged to go to the Southwest six months ago on account of tuberculosis; died from that disease, January 2, in El Paso, Texas, aged 33.

Abram Goodfellow, M.D. Michigan College of Medicine and Surgery, Detroit, 1902; a member of the Michigan State Medical Society; formerly supervisor of Genesee County; died at his home in Clio, January 6, from cerebral hemorrhage, aged 51.

William Foree Beard, M.D. University of Louisville, Ky., 1858; a member of the Kentucky State Medical Association; a surgeon in the Confederate service during the Civil War and a trustee of the Kentucky Confederate Home; died at his home in Shelbyville, January 9, from heart disease, aged 77.

John Wesley Carson, M.D. Western Reserve University, Cleveland, 1892; a member of the American Medical Association; local surgeon for the Lake Shore and Michigan Southern Railroad at Bergholz, Ohio; died at his home, January 5, from angina pectoris, aged 50.

Joseph Red Stuart, M.D. Jefferson Medical College, 1890; a member of the American Medical Association; proprietor of the Houston (Texas) Infirmary; was instantly killed in a collision between his automobile and a wagon, near Houston, January 12, aged 44.

William Batchelor Bradner, M.D. College of Physicians and Surgeons, New York City, 1857; who had been an invalid for twenty-two years on account of cerebral hemorrhage; died at his home in Englewood, N. J., October 5, from chronic nephritis, aged 78.

Doke Gentle, M.D. St. Louis University, 1908; of New Franklin, Mo.; a member of the American Medical Association; who was operated on for appendicitis in St. Anthony's Hospital, St. Louis, December 25; died in that institution January 6, aged 26.

Thomas Clinton Baldwin, M.D. University of Maryland, Baltimore, 1894; for several years health officer of Whitehall, Md., and later health commissioner of York, Pa.; died at his home in White Hall, January 3, from nephritis, aged 44.

William Cosby Paschal, who retired from practice more than forty years ago; for six years president of the Mercer University board of trustees, Macon, Ga.; died at his home in Dawson, Ga., October 26, from cerebral hemorrhage, aged 74.

Willard H. Titus, M.D. Hahnemann Medical College, Chicago, 1874; a member of the Wisconsin State Medical Society and an enthusiastic student of Indian ethnology; died at his home in Oshkosh, January 7, from influenza, aged 65.

Keran O'Brien, M.D. Long Island College Hospital, Brooklyn, 1901; a member of the Medical Society of the State of New York; at one time physician at the schoolship *Newport*; died at his home in East New York, January 6.

William Elza Green, M.D. Eclectic Medical Institute, Cincinnati, 1872; died at his home in Little Rock, Ark., January 5, from the effects of a gunshot wound, self-inflicted, it is believed, with suicidal intent, aged 68.

William Patch, M.D. Western Reserve University, Cleveland, 1885; formerly a member of the American Medical Association; for many years a practitioner of Coleta, Ill.; died in the Watertown State Hospital, January 2.

Lewis Haines Crothers, M.D. University of Pennsylvania, Philadelphia, 1899; formerly a member of the surgical staff of the Chester (Pa.) Hospital; died at the home of his mother in Upland, Pa., January 1, aged 35.

David G. Morris (license, Wisconsin, 1899); a member of the Wisconsin State Medical Society; for fifty-nine years a practitioner of Sharon, Wis.; died at his home, December 31, from hypostatic pneumonia, aged 78.

James Gibson, M.D. College of Physicians and Surgeons, Chicago, 1886; for twenty-eight years a practitioner of Janesville, Wis.; died at the home of his sister in that city, January 6, from heart disease, aged 47.

Virgil Corydon Taylor Kingsley, M.D. University of Michigan, Ann Arbor, 1883; a member of the American Medical Association; died at his home in Danville, Ill., January 10, from meningitis, aged 55.

Charles F. Sager, M.D. Columbus (Ohio) Medical College, 1884; formerly a practitioner of Leavenworth, Kan.; died in a hospital in Kansas City, Kan., January 3, from cerebral hemorrhage.

John A. Burlington, M.D. Baltimore Medical College, 1890; a member of the Medical Society of the State of Pennsylvania; died at his home in Duryea, December 31, from pneumonia, aged 55.

Waine Sims, M.D. Reform Medical College of Georgia, Macon, 1857; for fifty-five years a practitioner of DeKalb County, Ga.; died at his home in Crossleys, January 3, from senile debility, aged 80.

Richard Sigmonde Hau Saloman, M.D. College of Physicians and Surgeons, Chicago, 1906; a member of the Illinois State Medical Society; died at his home, January 6, from myelitis, aged 28.

Andrew Truax Veeder, M.D. Albany (N. Y.) Medical College, 1863; formerly of Schenectady, N. Y.; a retired practitioner of Pittsburgh, Pa.; died at his home, January 4, aged 70.

William H. Shank, M.D. Cincinnati College of Medicine and Surgery, 1890; a member of the Ohio State Medical Association; died at his home in Burton, recently, aged 50.

James Peter Oliver, M.D. Tulane University, New Orleans, 1859; a member of the State Medical Association of Texas; died at his home in Caldwell, November 30, aged 75.

Elmer Claude Stanley, M.D. Drake University, Des Moines, Iowa, 1902; a member of the Iowa State Medical Society; died at his home in Des Moines, January 2, aged 38.

Joseph Tully Winlock, M.D. Jefferson Medical College, 1867; a Confederate veteran; died at his country home near Hiseville, Ky., November 27, from nephritis, aged 69.

Thomas Jenkins (license, examination, Tennessee, 1889); of McBurg, Tenn.; was drowned while trying to ford a flooded creek, near his home, January 6, aged 45.

M. F. Jerrolds (license, Tennessee, 1889); a surgeon of volunteers during the Civil War; died at his home in Jeraldstown, January 5, from senile debility, aged 91.

Edward Maurice May, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1893; died at his home in Mount Zion, Ill., November 2, from uremia, aged 44.

Leo John Steger, M.D. University of Tübingen, Germany, 1861; died at his home in Egypt Mills, Mo., January 3, from cerebral hemorrhage, aged 70.

Theodore Millspaugh, M.D. College of Physicians and Surgeons, New York City, 1861; died at his home in Wallkill, N. Y., December 12, aged 74.

M. Ware, M.D. Northwestern University Medical School, Chicago, 1875; died at his home in Oakland, Kan., December 2, from nephritis, aged 69.

Edward Lawrence Casey, M.D. University of Maryland, Baltimore, 1905; died at his home in North Woodstock, N. H., December 10, aged 30.

James Lewellen (license, Arkansas, 1903); for many years a practitioner of Mabelville, Ark.; died at his home in that place, January 6, aged 76.

Alvin T. Henton (license, Illinois, years of practice, 1878); a practitioner of Bloomington since 1891; died at his home, January 6, aged 64.

Orla Stair Bailey, M.D. University of Michigan, Ann Arbor, 1882; died at his home in Lansing, Mich., December 25, from nephritis, aged 53.

William A. Grove (license, Illinois, year of practice, 1877); a pioneer practitioner of Henry County; died at his home in Galva, January 9.

Robert Dempsey Boyd, M.D. Rush Medical College, 1878; died at his home in Chicago, January 9, from valvular heart disease, aged 67.

Evert James Bergen, M.D. New York University, New York City, 1887; died at his home in Washington, N. J., December 22, aged 66.

Louis T. Beemer (license, years of practice, Illinois, 1889); of Effingham; died in St. Anthony's Hospital, in that city, January 2.

Simon Goldmann, M.D. Imperial-Royal University, Vienna, Austria, 1889; died at his home in Pittsburgh, Pa., December 14, aged 49.

Hartley Spinney Jacques, M.D. New York University, New York City, 1887; died at his home in Halifax, N. S., November 11, aged 54.

Isaiah Bee, M.D. Cleveland Medical College, 1860; died at his home in Princeton, W. Va., November 15, from senile debility, aged 81.

Peter Eppler, M.D. Northwestern University Medical School, Chicago, 1867; died at his home in Pontiac, Ill., November 3, aged 72.

Franklin Potts (license, Nebraska, 1899); of Kearney; died in the Masonic Home, Plattsmouth, December 21, aged 77.

Willis Wallace Carson (license, Oklahoma, 1908); of Boynton; died suddenly in that place, December 28.

James Charles McKenna, M.D. Harvard Medical School, 1868; died at his home in Boston, December 13.

A. L. Maple (license, Oklahoma, 1908); died in Oklahoma City, January 3.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER MATTER TENDING TO AID INTELLIGENT PRESCRIBING AND TO OPPOSE MEDICAL FRAUD ON THE PUBLIC AND ON THE PROFESSION

COUTANT'S FRAUDULENT DEAFNESS CURE

A Fakish Concern Conducted by an Individual With an Unsavory Reputation

George E. Coutant, M.D., conducts a fraudulent "cure for deafness" concern from two addresses in New York City, 1215 Broadway and Station E, Post Office. The business is conducted on the mail-order plan by methods common to fakes of this type. Victims are obtained in the usual way—advertisements in such newspapers and other publications as are not above sharing in the profits of quackery. Coutant went to New York City ten or twelve years ago. Before that time he had practiced in the towns of Poughkeepsie, N. Y., and Dobbs Ferry, N. Y.

After settling in New York City, Coutant advertised for some time from the same address as that of "Woods' Cure for Drunkenness"[1] and the "Koskott Laboratory" cure for baldness, and it is said that he is identified with both these concerns. His connection, whatever it may be, with the "cure for baldness" is, naturally enough, kept from the public; a glance at his picture will show why.

It may be remembered that at the time Ehrlich's salvarsan ("606") was first introduced in this country, blatant advertisements were inserted in the newspapers all over the United States by a New York concern styling itself the "'606' Laboratories."[2] This wretched fraud, which advertised "One Dose Cures, All Symptoms Removed in Two Days," was owned by one James H. Scott. Coutant was the professional renegade who administered the drug and shared the profits of Scott's quackery. The New York authorities prosecuted Scott who, it is said, has discontinued the business which is now being conducted under the name of "Dr. G. N. Bancker."

In addition to his connection with this unsavory outfit, Coutant is said to have been more or less closely identified with such frauds as the Force of Life Co.,[3] which the federal authorities put out of business a few years ago, with old Dr. Hale on Fourteenth Street, New York City, and with two medical mail-order fakes, Kotalko Inc., at 1215 Broadway and the All Day Cure Co., 534 Sixth Avenue.

ANSWERING THE ADVERTISEMENT

Those who answer Coutant's advertisements are sent a thirty-two-page pamphlet entitled "A Treatise for Those Troubled With Deafness." In it Coutant declares, as his "positive belief," that he has discovered "the most efficacious general system for treating catarrhal deafness and head-noises which is obtainable anywhere in the world." Like so many advertising quacks, he attempts to defend his method of going to the public. No matter how skilful a physician may be, says Coutant, he "must remain in the same oblivion as the stupid doctor"—unless he advertises!

> "Even if he could accomplish wonders in any branch of therapeutics, he must, according to the old system, plod along depending on the recommendations of patients."

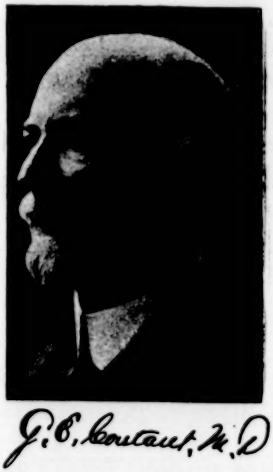
For a man who does not stick to facts, Coutant's memory is short, for a few pages farther on in his pamphlet, where he wishes to make an entirely different point, he says:

> "Most of the good aurists are very busy practitioners."

In 1910 and 1911, Coutant fabricated even more boldly than he now does. Probably the activity of the fraud-order department of the post-office has made him more wary. A comparison of a few sentences taken from his earlier follow-up epistles with those he sends out to-day will make this clear:

1910	1912
"You could not write to any other medical specialist who *could* treat your case *as* effectively as I can."	"You could not write to any other medical specialist who *would* treat your disorder *more* effectively than I can."
"Fully 75 cases out of every 100 are *curable*."	"Fully 75 cases out of every 100 are *amenable to being benefited*."
"You may look forward with hope and joy to a *complete and lasting cure*."	"You may look forward with hope and joy to a *notable benefit*."

"It is far from my nature and disposition to boast," confides Coutant; in fact, "if I had not become a physician I should have been a clergyman. I am inherently conscientious. . . ." And, modest violet that he is, he goes on to say:



J. E. Coutant, M.D.

Fig. 1.—Like so many quacks, Coutant is fond of publishing his picture. Side view and full view, his picture appears scattered promiscuously throughout his "literature." A glance at the picture here reproduced will explain why the alleged connection of Coutant with the Koskott "cure for baldness" is kept in the background.

> "I know the only satisfactory method of conquering deafness."
> "I am well learned and experienced in general medical practice."
> "I have successfully treated . . . rheumatism, sciatica, lumbago, gout, neurasthenia, nervousness, loss of vigor, general weakness, catarrh, asthma, hay fever, bronchitis, epilepsy, piles, female disorders, eye troubles, children's chronic ailments and numerous other ills to which flesh is heir."
> "I truly believe I am the one who is, by far, doing the most good."
> "I am fair spirited and courteous."

And so on *ad nauseam*. In addition to the booklet, Coutant sends, to those who write him, the first "letter" of his follow-up series. This is a four-page communication, printed in purple ink and in imitation of typewriting, with the name of the person to whom it is addressed filled in to match. It tells of the wonderful results that may be expected if the patient takes the treatment—for which $10 is asked. The prospective victim is urged to send the money at the earliest possible moment, for:

> "The probability is that if you put off answering this letter and write to me later, I shall have raised my fee so that you must pay fifty dollars. Yet, I ask you to send only ten dollars with your letter. Do not put this aside, dear FRIEND. IT MEANS SO MUCH TO YOU."

1. Edward J. Woods' Fraudulent "Cure" for Alcoholism, Propaganda for Reform Department, THE JOURNAL A. M. A., Feb. 17, 1912, p. 502; also reprinted in pamphlet form, price 4 cents.
2. Advertising Salvarsan to the Public, Miscellany Department, THE JOURNAL A. M. A., Feb. 11, 1911, p. 436.
3. See Turner Obesity Cure, Propaganda for Reform Department, THE JOURNAL A. M. A., June 22, 1912, p. 1961.

He would have been nearer the truth had he said: The probability is that if you put off answering this letter long enough I will lower my price to $3! But of this, more later.

If his first letter is ignored, follow-up Letter 2 arrives five days later. This is marked "personal" and commences:

"*Esteemed Correspondent:*—The accompanying 'photograph gallery' will interest you, as well as the other particulars that are herein given. The notable success of my system of self-treatment at home is upsetting the old notion . . ."

And so on. The "photograph gallery" referred to is a list of testimonials with pictures of those giving them. Nothing is said in the second letter about the price. If this letter, too, is not answered, in twelve days comes Letter 3. This has a little more of the personal touch although it, too, is printed in imitation typewriting. The name of the person to whom it is addressed is filled in and so is the date. In the body of the letter this paragraph, too, has been put in by Coutant's girl typists:

"I would like to make you, Mr. ————, the happiest man in Chicago. Will you let me do it?"

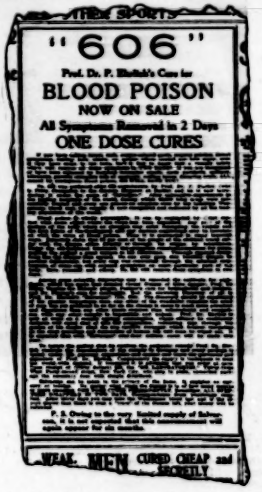


Fig. 2.—A typical advertisement of the "606 Laboratories" with which Coutant was connected.

Of course, Coutant, himself, never sees these letters after the proof has once gone to the printer. Even his signature is printed and the filling in is done by girl typists. If Letter 3 fails to extract the cash—and, by the way, nothing is said about the price of the treatment in this letter—Letter 4 may be looked for about three weeks later. This commences:

"*Dear Friend:*—I feel prompted to send you this letter to-day because I do not believe that you wrote me originally out of mere curiosity and I am, therefore, somewhat mystified as to the reason why I do not receive your order for my Home Treatment."

If this, too, fails to capture the victim, Letter 5 arrives three weeks later. Thus:

"*Esteemed Friend:*—If I were to pin a five-dollar bill to this letter, you would acknowledge it as a nice present, yet it would be no more liberal than what I now propose. Let me send you my Treatment (as described and specified in my treatise) for half its price—only five dollars. . . ."

Three weeks more elapse and then Coutant's mailing force sends form-letter No. 6:

"*Dear Friend:*— . . . From my previous letters you may have learned how deeply interested I am in you and how anxious I am to aid you and even went so far as to offer to send you a Home Treatment Set upon receipt of half the regular fee . . . It may be inconvenient to spare the sum of five dollars in one remittance and as a special favor to you I am willing to accept one dollar now and allow you to pay the balance ($4.00) when you receive the Home Treatment Set. I know you will concede that this is a very liberal arrangement for you . . ."

A month later—if the bait is still untouched—comes Letter 7 of the series. In it Coutant surmises that financial reasons may account for the "Esteemed Recipient" not having ordered the treatment. Hence:

"Let me now make your mind easy on the financial side of the question. I want to cure you and do not intend to let you lose the opportunity of taking my treatment merely because you are unable to send me ten dollars monthly. I make an offer to you now which I am confident you will not delay in accepting. I want you to send me ONLY THREE DOLLARS for a month's Treatment . . ."

This is the last of Coutant's series. If he fails to get the three dollars finally asked for, he charges up the postage and advertising matter to "profit and loss," removes the name from his mailing-list and, presumably, sells it to letter brokers or to other quacks in the same line of business.

Coutant's mailing system may be summarized as follows:

First letter, initialed GEC/A	Asks $10.
Second letter, initialed GEC/Ax-1	Mentions no price.
Third letter, initialed GEC/B	Mentions no price.
Fourth letter, initialed GEC/C	Still asks $10.
Fifth letter, initialed GEC/D	Asks $5 down and $5 after cure.
Sixth letter, initialed GEC/E	Asks $1 down and $4 when treatment is received.
Seventh letter, initialed GEC/F	Asks $3.

THE "TREATMENT"

Should the patient send in ten or five dollars or three dollars, as the case may be, for Coutant's Home Treatment he receives several small boxes containing a salve and pills of various sizes, shapes and colors. "All my remedies are guaranteed by law," says Coutant, a statement that is an unequivocal falsehood. The drugs were analyzed in the Chemical Laboratory of the American Medical Association.

"*No. 55.*"—A circular cardboard box containing thirty-two purple, sugar-coated tablets. When analyzed in the laboratory, these tablets were found to consist largely of resinous matter possessing an odor and taste similar to balsam of Tolu or Peru and to contain some sugar and starch. The instructions accompanying the "treatment" state that one of these tablets should be taken just before breakfast—presumably to make the victim feel that he is being "treated."

"*No. ½, Dr. Coutant's Laxative.*"—A circular cardboard box containing ninety-two pink sugar-coated pills. Chemical analysis showed that they were evidently the well-known aloin, belladonna and strychnin (A. B. S.) laxative pills. The sheet-anchor in the quack's armamentarium is a laxative. There is a tendency for people to overload the alimentary tract too often and unload it too seldom. The feeling of buoyancy and well-being that follows a good evacuation of the bowels is well known and, considering the ease by which it may be accomplished, it is not surprising that the quack takes advantage of it.

"*No. 77.*"—A circular tin box containing sixty-six brownish-gray, uncoated tablets. Analysis showed that these tablets contained no active medicaments, but were apparently nothing but starch and gelatin. The unpleasant glue-like odor was partly disguised by minute quantities of oil of wintergreen. These tablets, like No. 55, are to be taken just at meal-time—this time at midday and in the evening. As no drugs could be found in them they are sent, probably, to sustain the interest!

"*No. 11, For Gargling.*"—A small rectangular box containing sixty-three bright yellow, uncoated tablets. Quantitative analysis showed that these tablets were nothing but sodium chlorid (salt). It would never do to tell the purchaser of a ten-dollar treatment to use such a simple, inexpensive and well-known substance as table-salt. But compress the salt into tablets, stain them a vivid yellow and they may be counted on to produce wonderful results. The mental effect produced by brilliant colors in pills and potions is fully realized by the mail-order medical faker, and every man in this business has his tablets made up in unusual shapes and gaudy hues.

V. 6
1913

"No. 63, Nasal Douche Solution."—A small glass vial containing eight large, pink, uncoated tablets. Wrapped around the bottle, but not attached to it, was a gummed label on which was printed "Dr. Coutant's Special Lotion for Use in the Nasal Douche." The instructions were to put these eight tablets in a quart bottle of water and fill the bottle up with water, placing the gummed label on the bottle after the solution is made. The tablets, which formed a slightly turbid alkaline solution, were found on analysis to consist essentially of sodium bicarbonate (baking soda) and borax with small quantities of thymol, anise and possibly other essential oils. The pink-colored alkaline liquid made by dissolving these tablets in water is weakly antiseptic. A few cents' worth of the compound alkaline antiseptic solution of the National Formulary would, when diluted, produce a more efficient preparation for a nasal douche. Coutant, in instructing the purchaser in the use of his "No. 63" solution, says: "Draw the liquid up into the nose by suction"—a recommendation that not only endangers him who follows it but also demonstrates the ignorance of him who gives it.

"No. 29, Absorbent Cream Salve."—A circular tin box containing a brownish ointment. Analysis indicated that it was petrolatum ("vaseline") with some turpentine-like substance mixed with it. This is to be rubbed "on the head just back of the ear."

"Dr. Coutant's Kotalizer."—This is a nickel-plated piece of tubing about 3 inches long and a half-inch in diameter, with perforations at each end. It is supposed to be used as an inhaler, one end to be placed in the mouth, the other end to go in the nostril. Within the tube is a small roll of felt saturated with oil having an odor that would shame a decayed onion. On analysis, the oil appeared to be a mixture of oil of mustard, camphor and resinous matter. The danger of inhaling the pungent fumes of oil of mustard, which is a most powerful irritant, is best described by quoting the caution which is given—in italics—in the United States Pharmacopeia: *"Great caution should be exercised when smelling this oil."* Yet this is put in the hands of the unsuspecting with no word of warning.

"Dr. Coutant's Nasal Douche."—This is an inexpensive glass nasal douche of the type commonly known as the Bermingham douche. In this instance it reached the purchaser broken.

Such then is the cheap outfit for which Coutant asks $10, $5 or $3, according to the ease with which his victims give up their money for the promised "lasting relief without drugs." This heterogeneous collection of pills, salves and gargles could doubtless be duplicated, in quantities, for 25 cents—and a profit made at that.

Two weeks after the treatment has been received another follow-up letter comes from Coutant telling the victim not to be discouraged at any apparent failure on the part of the treatment.

> "Dear Patient, you must maintain calm perseverance . . . do not look for miracles; be content with the gradual benefit which it is the purpose of my Method to provide."

This letter, of course, is a preliminary one sent for the purpose of breaking gently the news that more "Home Treatments" must be purchased. Again in two weeks another letter comes printed as usual in imitation of typewriting, and while it is marked personal has nothing individual about it except the date which has been filled in on a typewriter. Says Coutant: "It is possible that as yet you may not have experienced any notable change in your hearing." It *is* possible, even probable. But, continues the quack:

> "There is every reason why you should continue under my care . . . If it is necessary to use a second supply, do you not think, dear patient, that the prospective benefit will more than pay you for your inconvenience and expense . . . Please let me hear from you at once so that I can prepare your new treatment for the next month and send it to you in time to avoid an interruption. It is so important."

It doubtless *is* important—to Coutant! In three weeks' time, if the money is not sent, the mailing force at the Coutant fakery sends out another form letter:

> "I feel a little apprehensive at not receiving your order, fearing that you may be neglectful of yourself . . . Again, I say, dear Friend, do not lose patience; do not fail to follow my instructions and to take my remedies regularly . . . Write me to-day and enclose payment so that I can send your treatment immediately."

With this letter is a bill for $3 for "One Set Medicinal Preparations for a Second Complete Treatment." More than a month later yet another form-letter comes. This epistle is really pathetic, for every line proclaims the fear of the quack that his chances of getting more money are poor indeed:

> "My candid personal opinion is that you ought to continue with my treatment, using a little further gentle perseverance . . . I say to you truly, upon my professional word of honor, dear Patient, that if you will place your trust in me you will have no reason to regret it . . . I can only surmise that the matter of cost has been standing in the way and if you had only made this clear in your usual frank manner, you could have relied upon me to do everything possible to meet you upon an agreeable convenient basis."

The "agreeable convenient basis" on which Coutant offers to "meet you" is that of offering a second set of his worthless treatment for "only three dollars." Says he, "I shall completely forego the remaining seven dollars."

Fig. 3.—Photographic reproduction of a Coutant newspaper advertisement. The size of the original was 12 inches by 9½ inches. Advertisements of this kind are very expensive; Coutant's dupes pay for them.

TESTIMONIALS

Like every other mail-order medical faker, Coutant's trump card is his testimonials. Testimonials, as we have shown time and again, are, as scientific evidence, not worth the paper they are written on. Many of them are positively fraudulent while many more are written in good faith by persons who have just commenced "treatment"—the kind of treatment makes no difference—and who, in the first flush of optimism, believe they are being benefited and write a letter to that effect. In cases of ailments of a general nature, the testimonial-giver is likely to maintain to the end of the chapter that he was benefited by the treatment. Most of us have vague aches and pains at times from which we recover in due course, whether with treatment, without treatment or in spite of treatment. Remembering the inability of the average person to distinguish between a mere sequence of events and cause and effect, it is easy to understand how the particular "treatment" that immediately precedes recovery gets the credit for that recovery.

There are, however, certain pathologic states that will in time give the lie to the testimonial. A sufferer from consumption or from cancer may give a testimonial for some worthless cure, and it is only necessary to wait awhile to be able to prove by documentary evidence—the death certificate—how valueless the testimonial is. The same is true, to a large extent, in cases of deafness. For this reason, a few of the testimonials published by Coutant were investigated.

Most of the testimonials that he issues at present do not give the address of the persons alleged to have written them. THE JOURNAL'S investigation of mail-order medical frauds has made fakers of the Coutant variety wary. Two or three years ago, when we were beginning to collect the Coutant material, this quack gave the full name and address of those who had written testimonials for him. After waiting for more than a year, or a sufficient length of time to permit the first enthu-

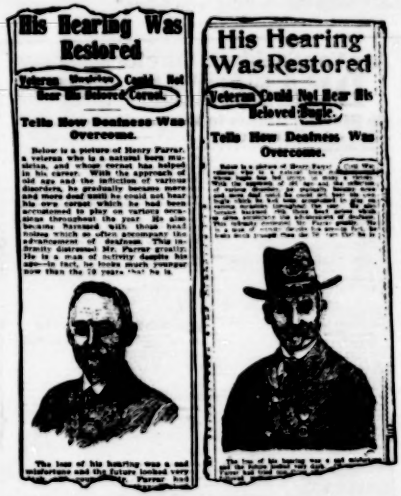


Fig. 4.—The versatility of the quack is notorious. Here are parts of two advertisements published in Southern and Northern newspapers, respectively. It consists of a testimonial from one Henry Farrar. In the Northern newspapers, Henry Farrar is "a Civil War veteran whose "bugle" we are told "led troops to many a victory;" in the Southern papers, Farrar's picture is shown, minus his G. A. R. insignia, and his "beloved *bugle*" has become his "beloved *cornet*," which, instead of leading "troops to many a victory" has merely "helped in his career."

siasm to wane, some of these testimonials were looked into. First, physicians who lived in the same town as the testimonial-givers were written to and asked to investigate the condition of these persons. We give here as briefly as possible what was learned. The names of the persons (and the towns in which they live) are purposely omitted to shield them from a somewhat unenviable notoriety:

J. F. C. T.——, South Dakota, had given a testimonial. In answer to the question: "Is Mr. T—— in any sense of the word, cured?" a physician in his home town writes us: "No, as bad as ever." He adds: "I have been well acquainted with J. F. C. T—— for some years. He is very deaf."

Miss L. S——, Wisconsin, was another testimonial-giver. The physician who was written to says: "Am well acquainted with Miss S—— and she is just as deaf as ever."

Mrs. M. A. H——, Illinois, has also testified for Coutant. We learn from our informant: "Mrs. H—— is totally deaf in both ears and has been for five or six years to my personal knowledge."

Mrs. M. A. B——, Ohio, furnished another testimonial. The physician who investigated this case writes: "M. A. B—— lives here and is so deaf that her own people are compelled to write for information from her. Her daughter-in-law, with whom she lives, says the treatment did her harm."

Mr. J. M. S——, Oklahoma, testified to the value of Coutant's "Home Treatment," but we are told: "He has suffered from deafness for years. He is not cured in any sense of the word."

Mr. H. L. W——, Kansas, had given a testimonial to Coutant, but: "He is deaf. Very, very deaf. I have known him for years and at no time has he been able to hear ordinary conversation. In order to make him hear at all, one must speak very loud and close to his ear."

Mr. J. A. R. F——, South Dakota, also testified to the value of Coutant's treatment. But Mr. F—— "has been deaf and is very deaf at the present time."

These cases are not selected. The names were taken from a letter sent out by Coutant about two years ago and the answers have been given just in the order they were received. In no single instance have we found a case in which a deaf person taking Coutant's treatment has been cured.

In the face of this testimony, received from unquestionable sources, it seemed worth while to find out what the individuals themselves thought of Coutant's "treatment" which they had taken. Accordingly, letters were sent to each of the persons just referred to by a woman living in a small town in the middle West. She explained that she was deaf and could not afford to waste money on worthless treatments and she urged the persons addressed to tell her frankly and honestly whether or not they could recommend Coutant's treatment. The replies were most interesting and bore out what has been said so many times regarding the scientific worthlessness of testimonials.

Mr. J. F. C. T——, of South Dakota, was the only one of those written to who still persisted in praising Coutant's treatment. T——'s loyalty is evidently known to Coutant for of all these old testimonials this seems the only one the quack publishes at the present day. Coutant sends out what purports to be a typewritten copy of a testimonial from Mr. T——, but which, certainly, was never written by that gentleman, although it may have been signed by him. In answer to the woman's inquiry T—— wrote in his own handwriting:

> Dear Madam :—Your letter of inquire to hand and in reply Will Say that I took treatmnt for earrh and deafness from Dr. G. E. Coutant of New York, N. Y. And he has help Me a hull lot.
>
> yours truley,
>
> J. F. C. T——, ——, S. Dak.

Now imagine the writer of this letter—given *verbatim et literatim*—writing a testimonial which starts in the following language:

> "I, J. F. C. T——, having been annoyed for several years with that treacherous disease known as catarrh and deafness of the head, believing in the honesty and methods of Dr. George E. Coutant of New York, consented to give his Treatment a trial . . ."

But if Mr. T—— is unwilling to warn a poor woman against the wiles of this quack, most of the other testimonial-givers are not. Here is the result of the inquiry:

Miss L. S——, of Wisconsin, failed to reply to the letter that was sent.

Mrs. M. A. H——, of Illinois, wrote in part:

> "I received your letter. Am sorry I can't advise you to try Dr. Coutant for he did me no good and I have corresponded with others that took his treatment and he did them no good. I have also doctored a lot. I have been out to Des Moines, Iowa, to Dr. Coffee. [Another quack. See the 'Great American Fraud.'—ED.] He did me no good but got about $80 out of me."

Mrs. M. A. B——, of Ohio, did not answer the letter that was sent, but her son did. He writes in part:

> "In answer to your question concerning this doctor's treatment for deafness, my mother had great faith in his medicine and possibly told him that it did her good, but if conditions now justify me of rendering an opinion, I would say that she had better have kept her money. She can scarcely hear anything and her mind is weakened, whether by taking patent medicine or otherwise, I am not able to say."

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Mr. J. M. S———, of Oklahoma, another who had given a testimonial, said:

"Can hardly give you a favorable statement in regard to Dr. Geo. Coutant's treatment . . . His treatment helped me a little but would not reach any further. I took his treatment over six months . . . I wish I could advise you, but I can't."

Mr. H. L. W———, of Kansas, has also changed his mind regarding Coutant's treatment. Says he:

"Your letter read and will say don't spend any money on the so-called deafness specialist for he cannot cure you but only wants your money. I have doctored with him for over two years and it did not do me a bit of good, and further he has let one of my neighbors believe he could cure him for $10 and after the first month he wanted $10 more so this fellow calls him a cheat, and I don't think he misses it." [Neither do we!—ED.]

Mr. J. A. R. F———, of South Dakota, in answering, writes:

"In reply to your inquiry in regard to Dr. Coutant's treatment for deafness will say I treated with him for four months but he did not cure my deafness. He did me some good at first but it was as bad in one week as it was before. He might do you some good or he might not. I could not say he would cure you. I know he did not cure me."

Mr. Thomas Lakey of Onalaska, Tex., was another of those whose testimonials were investigated. Mr. Lakey, also, has changed his mind in regard to Coutant's treatment and he is willing to do what he can to counteract such harm as his testimonial may have done, for he declares, under oath:

The State of Texas }
County of Angelina }

Before me the undersigned authority, a notary public in and for Angelina County, Texas, on this day personally appeared before me, Tom Lakey, who after being by me duly sworn deposes and sayeth: After taking Dr. Coutant treatment for deafness for five and one-half months, I find that my condition is no better, if anything worse, than it was before taking the treatment.

Tom Lakey

Subscribed and sworn to before me this 29th day of November A. D., 1912.

R. V. Welch, Notary Public, Angelina County, State of Texas.

Could anything show better the absolute worthlessness of the testimonials used by the mail order medical fakers? No wonder quack Coutant no longer publishes the addresses of his testimonial-givers, except in the few instances of individuals whose favorable reports he can rely on!

THE GUARANTEE DODGE

Next to testimonials the "guarantee" scheme is the most popular piece of claptrap used by quacks. Of course Coutant uses it, and his "Money Refund Guarantee Certificate" is an important part of his advertising paraphernalia. Like all such "certificates" the thing is perfectly worthless. In large type Coutant says:

"I Do Hereby Assert that whoever becomes my patient, for the purpose of treating his or her catarrh, deafness or head noises (or two or all three), and who cannot truthfully report a perfectly satisfactory cure or result, shall receive from me a refund of the sum of ten dollars (or two guineas in English money), which amount I will promptly pay, without hesitation, provided it is demanded within six months and in accordance with the conditions mentioned on the other side of this Money Refund Guarantee Certificate."

The "joker" lies, of course, in the "conditions mentioned on the other side" of the certificate. These "conditions" are buried in a mass of inconsequential verbiage printed in very small type and inordinately long, but the gist of the matter is that Coutant will "refund ten dollars as specified":

" . . . provided that my Method is followed uninterruptedly for at least three months; also provided that I am prepaid ten dollars for each treatment . . ."

This means that Coutant is willing to return ten dollars provided that the victim shall have sent him at least thirty dollars for a worthless "cure." By the terms of the "guarantee," Coutant plays to get at least twenty dollars for something hardly worth as many cents. Yet there is little doubt that thousands of victims have been led to send in their money in the belief that Coutant guarantees either to cure them or to refund their money!

For instance, we received a letter from a New York business man, asking us about Coutant, in the course of which he says:

"Dr. Coutant has written to my friend, who has been deaf for a number of years, that if a fee of $10 is sent to him (Dr. Coutant) a cure will be assured or the money returned."

Of course Coutant does not make any such claims; he is too shrewd to make a statement in black and white that if not lived up to could bring him immediately into the courts on the charge of obtaining money under false pretenses or, if lived up to, would land him in bankruptcy. It is characteristic of the modern quack so to word his advertising matter as to give the greatest amount of deception with the least amount of legal risk.

Coutant's fake, then, may be thus summed up:

1. Coutant, himself, is a man of no professional standing; he has been connected with various fraudulent and unsavory concerns and is at present engaged in a business that is both fraudulent and disreputable.

2. Like most quacks, Coutant makes claims that are either positive untruths or gross exaggerations. Like most quacks too, his advertising reeks with self-laudation.

3. He attempts to give the impression that the price of his "treatment" will soon be increased when as a matter of fact he makes it a rule to lower the price the longer the victim remains unconvinced.

4. Although he advertises to produce cures "without drugs," as a matter of fact he sends several different kinds of drugs to the persons who purchase his treatment.

5. The treatment itself is perfectly worthless as a cure for deafness.

6. His testimonials have just as little value as his treatment and, as has been shown, while they may be documentarily genuine they are actually not worth the paper they are printed on.

7. Coutant's "guarantee" to refund money is merely a piece of advertising claptrap that requires those who would benefit from it to spend $30 for worthless treatments on the chance of getting $10 refunded.

8. In short, Coutant is engaged in swindling the deaf, through the instrumentality of the United States mails, and we trust that the efficient but overworked department of the post-office which investigates frauds of this kind will before long protect the deaf by denying Coutant the use of the mails.

Correspondence

Excesses of the Freudian School

To the Editor:—In a recent number of the *Nation* appears an editorial entitled "The Alienist and Literature," which is commended to the attention of the disciples of Freud in this country. It is the answer of the man in the street to the excesses of the Freudian school. In his book on Browning, G. K. Chesterton points out with great insight the fact that there are times when the man in the street knows more than all the specialists. He instances the case of Elizabeth Barrett, confined to a couch in a darkened room, and shielded from every whisper from the outside world. When Browning proposed to marry her he was regarded by her father as demented. And yet he did marry her. He carried her from that atmosphere of invalidism, and two years later she was well enough to bear a child and to ride horseback over the Italian mountains.

How much of all that we have heard lately about the sexual etiology of psychoneuroses is true, I personally am frankly not in a position to judge. But that the neurologists have made out a very good case in print I am most loath to believe. There are few persons who would not admit that in many, let us say in most, cases, hysteria and neurasthenia have a basis in subconscious sex associations. But that sex fills the whole world to the extent that one would gather from a perusal of Freudian literature, even that it fills the whole world of psychoneuroses, is hardly reasonable. Many of the cases which the neurologists

instance are well worked out; the connection between the symptoms and the incidents which are believed to be their anlage appear to have been subjected to some sort of critical examination before being accepted. But when we are given a young woman's *gauche* remark—her reply to a compliment on a diamond star which she wore at her bosom by saying, "Yes the stars are always brightest in the milky way"—and are told that the explanation lies in the fact that she had been looking at the heavens with a young man with whom she was in love, that he had said her eyes were like stars, that his own eyes were blue, that he had seen her once holding a blue-eyed baby in her arms and told her that blue-eyed babies were becoming, that she desired to give a blue-eyed baby whose eyes were like stars milk from her breast—why then I am forced to wonder which is crazier, the patient or the physician.

It is difficult to know why the Freudians believe that their case is strengthened by their analysis of cases in imaginative literature. My own type of mind may lack delicacy. But when I read that the explanation of Hamlet's psychoneurosis was that he was sexually in love with his own mother and sexually jealous of his uncle, when passages of the play are quoted to prove this contention, when the words which Shakespeare put into his mouth are adduced as evidence; when Lady Macbeth is subjected to as close a scrutiny, there is only one thing that all this proves to me—that the devil can quote scripture for his purpose, that if the lines of a play 300 years old can be twisted to prove a hypothesis of applied science not yet in its teens any word of any patient can likewise be so twisted.

LOGAN CLENDENING, M.D., Kansas City, Mo.

International Memorials to Lord Lister

To the Editor:—I have received word from Mr. A. Ernest Maylard of Glasgow that the managers of the Royal Infirmary have been induced to retain one of the wards in which Lister worked. It will be converted into a museum for everything associated with Lister and his great work. Surely no American surgeon can contemplate such a memorial and the other memorials planned without wishing to take part in at least one of them. The profession owes the profoundest debt to Lord Lister. We all have recognized this in words. Now the opportunity has come to recognize it in deeds. I beg leave through THE JOURNAL to appeal to members of the profession throughout the country to contribute such sums as they feel they can afford, sending the amount to those having charge of any of the proposed memorials.

May I also ask through THE JOURNAL that the various medical journals of the country give publicity to these splendid memorials to one of the greatest benefactors of humanity?

W. W. KEEN, M.D., Philadelphia.

[COMMENT.—The Lister memorials comprise a Lister International Memorial Fund, from which will be drawn from time to time a Lister International Award for the most notable contribution to surgery in any part of the world, and which will also support fellowships and studentships in surgical research; a monument in London; a memorial tablet in Westminster Abbey; a monument in Glasgow; and the preservation of the ward in the old building which is now being torn down to make way for a new building of the Royal Infirmary. This ward will be arranged as it was in Lister's time, furnished with contemporary articles, and provided with exhibits showing the work that Lister did and with articles of a personal nature associated with the man in his work. Contributions may be made to any of the memorials, and may be sent to Dr. W. W. Keen, 1729 Chestnut Street, Philadelphia. Each contributor is asked to designate the particular memorial to which he wishes his contribution to be applied.—EDITOR.]

Action of One Society on the Secret Commission Evil

To the Editor:—The Western Surgical Association (a report of whose scientific proceedings you are now running in THE JOURNAL) again took an active interest in the question of fee-splitting at its recent meeting in Cincinnati and the following resolution was adopted:

"*Resolved*, That it is the intention of this association not to countenance the practice of fee-splitting in its members or in its applicants for membership and that we incorporate in the application blank for membership in this association a clause to be signed by the applicant, stating that he does not now practice and will abstain in the future from the practice of fee-splitting in any form and that he will not countenance it in others.

"It is further suggested that this association would be pleased to receive the resignation of any member, if such there be, who feels that he is not willing to live up to this provision."

The Western Surgical Association asks the cooperation of the various American surgical associations, the state and interstate medical associations and regents of the state universities, in the suppression of both the secret and open fee-splitting evil in its various forms.

A. T. MANN, M.D., Secretary, Minneapolis.

Prevention of Typhoid Infection

To the Editor:—The sanitary closet-cans referred to by Dr. Charles T. Nesbitt in his article on "The Control of Typhoid Fever" (THE JOURNAL, Jan. 4, 1912, p. 6) may be easily obtained in localities where acetylene gas is used for general lighting purposes. The calcium carbid is supplied in air-tight, screw-top, iron cans holding 100 pounds of carbid. These cans, when empty, make ideal closet-cans and cost nothing but the asking. I have used them in typhoid in a manner similar to that described by Dr. Nesbitt in his article, with the exception that they are not used the second time.

HERBERT A. THOMAS, M.D., Lake View, Ohio.

Coccidioidal Granuloma in California

To the Editor:—In THE JOURNAL (Dec. 21, 1912, p. 2253) there is reported by F. H. Bowles of Oakland, Cal., a case of coccidioidal granuloma, the nineteenth in California. Dr. Bowles has evidently overlooked a case I reported in THE JOURNAL, Nov. 12, 1910, p. 1730. This case, which occurred in 1907, should therefore be the nineteenth case reported. There have been several cases in California, however, since the so-called eighteenth case, which have not been reported as yet; Dr. Dixon of Stanford University has seen three cases.

H. A. L. RYFKOGEL, M.D., San Francisco.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

DO UNTOWARD RESULTS FOLLOW THE USE OF PHYLACOGENS, OR SCHAFER'S VACCINES?

To the Editor:—I am interested in the development and progress of vaccine treatment of infections, and recently I have become especially interested in the so-called "phylacogens" so extensively advertised by Parke, Davis & Co., and known earlier as Schafer's vaccines. I have heard from various sources that the injection of these preparations sometimes gives rise to immediate and alarming symptoms of intoxication, and I should like to know definitely how many such cases there are. How can I get the information? As you know, it is human nature to report successes, but not failures. This is especially true when one is using such proprietary preparations as the phylacogens. What is the best way to get at the facts?

How would it be to publish a letter in THE JOURNAL asking those who have had experience to report it with the promise that their reports will not be published, or, if they are, that their names will be withheld? I do not want my name connected with it, but at the same time I should like to get the information. Please enlighten me.

L. V. N.

ANSWER.—We have replied to our correspondent that the best way to get this information is to publish his letter, for we believe that those who have been using these vaccines—or are they toxins?—and who have had untoward results, either immediate or ultimate, would willingly state the facts. We will be glad to transfer to our correspondent any reports our readers may submit, withholding their names if it is desired. Naturally Parke, Davis & Co. are giving wide publicity to the favorable side—what about the unfavorable?

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THE FRIEDMANN TUBERCULOSIS TREATMENT

Scores of physicians and laymen from all over the country are writing us, concerning the recent sensational announcements in the newspapers to the effect that a Dr. Friedmann in Germany had discovered a cure for tuberculosis. They are asking Dr. Friedmann's address, asking where the remedy can be obtained, and one physician asked us if we would advise him to start immediately for Germany to secure some of the material. To the latter we replied that we certainly would advise nothing of the kind, that we do not know that he would be able to secure any of the remedy, and furthermore, that there is a great difference of opinion among Dr. Friedmann's own countrymen as to whether this new remedy justifies its being called any improvement over tuberculin and other methods previously known. We refer all such inquirers to the issue of THE JOURNAL, Dec. 14, 1912. In that number they will find on pages 2158 and 2159 our opinions of the matter at that time; our opinions have not changed at this date of writing (January 22). Those who wish to read more of the Friedmann claims will find them abstracted in our Current Medical Literature Department in the same issue, page 2192, and in our Berlin Letter, Dec. 7, 1912, page 2081. In addition, a letter from Dr. Friedmann's brother in his defense and our comment in reply were published in the Correspondence Department, Jan. 4, 1913, page 67.

It may be of interest to quote from the *Lancet* (London, England) of Jan. 4, 1913:

"The results of the proceedings of the Berlin Medical Society were that Dr. Friedmann's claim to cure tuberculosis was held to be not well founded. Men of high scientific standard who had handed cases over to him have expressed a very doubtful opinion of the results, and also his theory has been severely criticized by competent bacteriologists. The warning of the *Lancet* against regarding Dr. Friedmann's treatment as a scientific discovery for the cure of tuberculosis was thus justified, and was all the more necessary, as some English daily papers were propagating a story of success."

ELIXIR AROMATICUM AS A VEHICLE

To the Editor:—You suggested in THE JOURNAL some time ago that if one wanted to use the lactated pepsin comp. as a vehicle one should leave the pepsin out. Can you give formula of such a vehicle that has the flavor without the digestants? There is no such vehicle that I know of at present.

M. T. CLARK, M.D., Temple, Okla.

ANSWER.—We are unable to find the passage referred to. In the National Formulary is a preparation known as elixir digestivum comp., containing pepsin, pancreatin, diastase, lactic acid and hydrochloric acid in addition to the ingredients of the elixir aromaticum. This unscientific and impossible elixir is made to replace certain proprietary preparations largely used as vehicles. It would serve as a vehicle just as well if it did not contain the pepsin, pancreatin and diastase, and even the lactic and hydrochloric acids might be omitted. Practically the elixir aromaticum will serve the purpose of concealing the taste of many otherwise unpalatable preparations. If it is desired to add a red coloring, this can be done by the use of tincture of cudbear. Elixir adjuvans can also be used for purposes of a vehicle, but it must be remembered that it is incompatible with acids.

RECIPROCAL RELATIONS OF MARYLAND AND PENNSYLVANIA WITH OTHER STATES

To the Editor:—1. With what states does Maryland reciprocate? Will these states accept a physician at once on his Maryland license, or must he have been registered in Maryland a certain period of time?

2. I would like to settle in some good, live, growing western town of from 5,000 to 10,000 or 15,000 population. Is there any way I can obtain a list of such towns, stating the number of physicians in each town (in a state that exchanges with Maryland)?

3. Does Pennsylvania exchange with any western state?

S. H. W.

ANSWER.—1. Maryland has reciprocal relations, on the basis of an examination only, with Arkansas, Delaware, Illinois, Louisiana, Maine, Minnesota, Texas and Virginia, and on the basis either of an examination or of a diploma from a reputable medical college without an examination if the diploma and the license were issued prior to June 1, 1892, with Georgia, Indiana, Iowa, Kansas, Kentucky, Michigan, Missouri, Nebraska, New Hampshire, Ohio, South Carolina, Vermont, West Virginia and Wisconsin. In whichever of these states you go, you would need to be registered. The following states would require that you have practiced in Maryland at least one year: Indiana, Kentucky, Louisiana, Missouri, Virginia (two years), and West Virginia.

2. The best source of information regarding towns of from 5,000 to 15,000 population, and the number of physicians located in each, is the third edition of the American Medical Directory.

3. Pennsylvania now has reciprocal relations with Nevada, New Jersey, Illinois, Ohio, Louisiana and Indiana.

ERADICATION OF TAPEWORM

To the Editor:—What is the best method of eradication of *Taenia saginata* in a delicate child aged 5? The ordinary and usual teniacides given in doses which the patient can tolerate are ineffective. I have tried them all, including pepo.

C. E. BENNETT, M.D., Aneta, N. Dak.

ANSWER.—The best remedies for *Taenia saginata* are pomegranate or its alkaloid, pelletierin tannate, and aspidium (male fern). If these have been used it would be best to endeavor to improve the nutrition and resisting power of the child and wait some months before making another trial. When it is determined to repeat the treatment, the gastro-intestinal canal should be put into as good a condition as possible. The child should first be treated with laxatives so as to free the intestine. Food should be withheld from the early evening until as late as possible the next day. The tannate of pelletierin can be given to a child from 3 to 5 years old in the dose of from 0.01 to 0.03 gm. (1/6 to 1/2 grain). The child should be kept in bed and lying down until the effect of the anthelmintic has passed off. The most useful cathartic is Epsom salts, 7.5 to 15 gm. (2 to 4 drams).

WHERE TO OBTAIN PREPARATIONS OF THE PITUITARY GLAND

To the Editor:—Please tell me where I can obtain preparations of the pituitary gland to be used in cases of infantilism (hypopituitarism), such as Dr. Cushing describes in his recent monograph on diseases of the pituitary body.

W. P. CLANCY, M.D., Warren, Pa.

ANSWER.—The action and uses of pituitary gland are described in New and Nonofficial Remedies, 1912, p. 161; also three preparations of pituitary substance: one derived from the entire gland, one from the anterior lobe and the third from the posterior lobe. These preparations are manufactured by Armour & Co., Chicago. It is probable that the anterior lobe preparations would be suitable for the case to which our correspondent refers.

THE BLOOD-TEST FOR PREGNANCY

To the Editor:—What is the technic for the blood-test for pregnancy and what is the method of preparing the placental extract?

L. N. C.

ANSWER.—In THE JOURNAL (Sept. 14, 1912, p. 881) in an editorial on "The Protective Ferments of the Blood and a New Test for Pregnancy" is a reference to Abderhalden's work in which the technic is described. A more recent editorial on the same subject (THE JOURNAL, Dec. 7, 1912, p. 2073) contains a reference to an article by Abderhalden in which a simplification of the test is described. It seems that the only way to learn to make this test is to follow Abderhalden's directions, which are best studied from his own description of the test.

EFFECTS OF GRAPEFRUIT

To the Editor:—Please advise me in reference to the effect of grapefruit on rheumatic conditions.

W. B. JAMES, M.D., Daytona Beach, Fla.

ANSWER.—Grapefruit is a variety of orange containing citric acid, and would have effects similar to those of orange or lemon. The citric acid is generally oxidized to carbon dioxid in the system, and thus loses its acid properties in the main. Citrates contained in this fruit are oxidized to carbonates and produce an alkaline effect in the blood and the urine.

LAMBERT TREATMENT FOR DRUG ADDICTION

Dr. H. C. Smisson, Jackson, Tenn.: Our supply of copies of THE JOURNAL containing the Lambert article on the treatment of morphinism, etc., has been exhausted. A pamphlet containing the article will be sent on receipt of 10 cents.

THE PULMOTOR

Dr. C. J. Habbegger, Watertown, Wis.: The pulmotor was described Aug. 31, 1912, p. 738.

NATIONAL MERCANTILE RATING AND CREDIT AGENCY

To the Editor:—To-day a man, representing himself as an agent of the National Mercantile Rating and Credit Agency of Milwaukee, came to me with the following proposition: For payment of $50 I would become a member of this association and in turn would make all reports and examinations for accident and health insurance companies in a certain district of Chicago. As this seems unreasonable to me, I would like to get your opinion regarding this company. If it is a fraudulent proposition, as I suspect, I think the profession as a whole should be warned of it.

R. E., Chicago.

ANSWER.—The National Mercantile Rating and Credit Agency seems to be an institution of varied activities. In February, 1912, in connection with a query in regard to the National Book Company, we found that the book company was a subsidiary concern of the National Mercantile Rating and Credit Agency of Milwaukee. The business of the agency at that time was alleged to be the obtaining of information regarding the financial and general standing of individuals and firms. Physicians were solicited to subscribe for five shares of the stock of the National Book Company at $2 a share, for which they became "confidential agents" for the concern. This seemed to be about the extent of the privilege granted for the purchase of the stock. The company, however, was careful to set forth in its contract that it reserved the "right and option" to purchase the shares of stock owned by the physician at the price formerly paid, plus 6 per cent. interest. But it was likewise careful not to say that the physician had the privilege of returning the stock to the company and demanding the amount paid for it plus 6 per cent. interest. The scheme presented by our correspondent in his query seems to be a rather expansive one, and certainly shows great enterprise on the part of the National Mercantile Rating and Credit Agency in corralling all the insurance examination business of all the companies doing business in a large village like Chicago. It would seem really careless of them to farm out large and juicy sections of the business for such a nominal sum as $50.

DUTY OF A PHYSICIAN TO PREVENT INFECTION

To the Editor:—The following case cannot be unique. I think that it is of sufficient importance to deserve an honest answer and wide publicity.

Among my clients are a young man of 28 and a girl of 18. The young people expect to be married, but the date of the wedding has not been announced. I am treating the young man for acute gonorrhea and have explained carefully and at length the dreadful consequences to the girl likely to follow should she marry him in his present condition, and have urged an indefinite postponement of the marriage. He says that he has known others to marry under like condition and he cannot see that anything very serious happened. He is obdurate and insists that he "will marry her and take the consequences." Unexpectedly to me, the mother of the girl came to my office, said that her suspicions of the young man had been aroused and asked me point blank whether he had any disease which would make it inadvisable for her daughter to marry him. What should I have told her? W. E. C.

ANSWER.—The truth.

"There are occasions . . . when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidences entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications." (Principles of Medical Ethics, Chap. 1, Sec. 2.)

HOSPITAL POSITIONS

To the Editor:—1. What are the duties of an extern to a hospital? 2. What steps would one have to take to obtain such a position? 3. When a physician wants some hospital training and he cannot find a place as intern or extern, would it be wise to try for a position at some hospital as a male nurse? D. A. B.

ANSWER.—1. The duties of an extern are similar to those of the intern. The difference is that one resides outside, the other inside the hospital.

2. Communicate with the superintendent of the hospital in which such position is sought. Read the classified advertisements in THE JOURNAL.

3. This depends on the hospital. Many have male nurses, but some employ them only for genito-urinary cases. If the service is not thus limited, the experience gained would doubtless be worth while.

LITERATURE ON INTESTINAL OBSTRUCTION DUE TO WORMS

To the Editor:—Please refer me to literature on intestinal obstruction due to worms. LEON J. MENVILLE, M.D., Houma, La.

ANSWER.—The following articles bear on this subject:

Van Meter, B. F.: Intestinal Obstruction Due to Roundworms, *Surg., Gynec. and Obst.*, April, 1909.
Venning, R. E.: Intestinal Obstruction from *Ascarides lumbricoides*, THE JOURNAL, June 18, 1910, p. 2041.
Whelan, Charles: Intestinal Obstruction Due to *Ascaris lumbricoides*, with Autopsy, THE JOURNAL, Oct. 22, 1910, p. 1442.
Roll, J.: Oxyuris as a Cause of Ileus, *Norsk. Mag. f. Lægevidensk.*, January, 1910, lxxii, No. 1.
Brun, V.: Helminths Complicating Operations on Children, *Policlinico*, Oct. 6, 1912, p. 1481; abstr. in THE JOURNAL, Nov. 9, 1912, p. 1757.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF POST-GRADUATE WORK, CONTRACT PRACTICE, LEGISLATION, MEDICAL DEFENSE, AND OTHER MEDICOLEGAL AND ECONOMIC QUESTIONS OF INTEREST TO PHYSICIANS

ANTINARCOTIC BILL INTRODUCED IN CONGRESS

Mr. Harrison of New York introduced, January 14, a bill known as H. R. 28023, entitled "A Bill Providing for Registration With the Collectors of Internal Revenue of Dealers in and Producers of Certain Drugs." This bill is similar to the Cullom bill, introduced in the Senate in 1910.

The first section provides that after the passage of the bill, every person who "imports, exports, produces or manufactures opium, morphin, coca leaves, cocain, their salts, derivatives or preparations, or who further manufactures, compounds, deals in, distributes, sells or gives away" any of these drugs or preparations containing them, shall register with the collector of internal revenue of his district. "Importers, exporters, producers, wholesale manufacturers, wholesale manufacturing pharmacists and wholesale dealers or jobbers" are to be taxed $100 per year, retailers are to be taxed $5 per year. The section provides minutely who shall be regarded as coming under these different classes. The definition which will interest physicians is the following: "Every other person who sells or gives away any of the aforesaid drugs, their salts, derivatives or preparations shall be regarded as a retailer." No specific mention is made of physicians, druggists or retail dealers, all being placed under the same classification. Wholesalers who fail to register shall be fined from $100 to $1,000; dealers and retailers from $25 to $500.

Section 2 provides for an internal revenue tax of 5 cents a pound on opium and 0.25 cent a pound on coca leaves. It also provides for internal revenue stamps similar to those now used for tobacco. Each person registering must file with his application a sworn statement showing the amount of opium and cocain in his possession at the time the act goes into effect.

Section 3 requires every person "importing, exporting, manufacturing, remanufacturing, compounding for his own account, distributing, offering for sale, or dispensing any form of morphin or cocain, to keep a record, make such reports and give such bonds as the commissioner of internal revenue may require."

Section 4 forbids the transportation in interstate commerce of opium or cocain to or from any unregistered person.

Section 5 permits the exportation of opium and cocain, but forbids their reimportation without the payment of the internal revenue tax.

Section 6 provides that any person who purchases, receives or sells, transfers or gives away any preparations of opium or cocain on which the revenue taxes have not been paid shall be fined from $100 to $5,000, or be imprisoned for from one to five years.

Section 7 provides that the possession of preparations containing the forbidden drugs shall be evidence of violation of the act, unless the defendant shall explain the possession to the satisfaction of the jury.

Section 8 provides for the filing of all reports under the act with the commissioner of internal revenue; also, that all

returns of sales and purchases shall be open to public inspection, and that copies can be secured for a specified fee. The section also provides that any person disclosing any information contained in any of the reports except in the manner provided in the act shall be fined or imprisoned as provided for in Section 6, shall be dismissed from office, and be thereafter incapable of holding any office in the government.

Section 9 appropriates $150,000 to carry out the provisions of the act.

Section 10 exempts persons making "sales, distribution or dispensation of remedies which do not contain more than 2 grains of opium or ¼ grain of morphin or ¼ grain of heroin, or 1 grain of codein in 1 fluidounce, or in 1 avoirdupois ounce." Dover powders, liniments and ointments are also exempt.

Sections 11 and 12 provide for the extension of existing laws to the provisions of this bill.

The interest of the medical profession in this measure is apparent. While no specific mention is made of physicians, yet they are plainly included under the definition of retailers. The provisions of the bill as introduced would include not only physicians who dispense their own medicines, but any physician who carries a few morphin tablets in a pocket case, or who gives a hypodermic injection. Under Section 4 it would also be unlawful for any patient to receive such medicine from a physician who was not registered under this act, and the patient would be liable to fine or imprisonment for so doing. The exemption clause is plainly drawn for the protection of patent-medicine manufacturers rather than physicians, since no patent or proprietary medicine would contain more than ¼ grain of morphin to the fluidounce. But in order to come under this exemption, any physician desiring to give ¼ grain of morphin hypodermically to a patient would be compelled to inject a fluidounce of water. Suppose a physician who has not registered under the terms of this bill should be called to see a patient in an emergency case, with only an ordinary hypodermic syringe. If he gave the patient ¼ grain of morphin hypodermically in the usual 30 minims of sterile water, both he and his patient would be violators of the law and subject to fine and imprisonment.

It is difficult to see how such a measure could be enforced, as far as applies to the 140,000 physicians in the United States. If a physician gives a hypodermic injection to a patient, or dispenses some tablets or powders, he alone knows how much morphin has been administered. But the physician could not be compelled to testify against himself.

Another objection to the bill as it stands is the amount of the registration fee. The Cullom bill provided for a one-dollar registration fee for physicians. The present bill provides for a registration fee of $5. Why should the medical profession be expected to pay approximately a yearly tax of $700,000 to enforce a law which is for the good of the public? THE JOURNAL is, and always has been, heartily in favor of any measure which would help to control the illicit trade in habit-forming drugs. Not only is such regulation imperative for the public good, but it is a matter of honor for this country to comply with its treaty obligations with Great Britain and China in suppressing the opium traffic. But a measure which is plainly drawn for the purpose of exempting patent medicines, and which at the same time imposes an unreasonable burden on the reputable practitioners of medicine, cannot be endorsed. If the registration fee for practicing physicians is reduced to a nominal amount such as 50 cents or $1 per year, providing a fee that will be purely for the registration and not for revenue purposes, and if a proper exemption can be provided for practicing physicians, allowing them to dispense to actual patients limited amounts of opium, morphin, etc., the bill will be entitled to fair consideration. In its present form it is not only unjust and discriminating, but it is practically unenforceable. It would also be interesting to know why such a heavy penalty is provided in Section 8 for any one disclosing the contents of any report.

It is reported that a substitute bill has been prepared by the National Drug Trades Conference, which contains some modifications of the Harrison bill. If this is correct, we may have something further to say on this subject in a later issue.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

KANSAS: National Hotel, Topeka, February 11. Sec., Dr. H. A. Dykes, Lebanon.

MISSOURI: St. Louis, February 24-26. Sec., Dr. Frank B. Hiller, State House, Jefferson City.

NEBRASKA: Lincoln, February 12-13. Sec., Dr. C. P. Fall, Beatrice.

NEW YORK: January 28-31. Chief of Examinations Division, Mr. Harlan H. Horner, Department of Education, Albany.

Texas June and November Reports

Dr. W. L. Crosthwait, secretary of the Texas State Board of Medical Examiners, reports the written examinations held at Austin, June 25-27, and at Dallas, Nov. 12-14, 1912. The number of subjects examined in was 12; total number of questions asked, 120; percentage required to pass, 75. At the examination held in June, the total number of candidates examined was 136, of whom 127 passed including 3 osteopaths and 9 failed. The following colleges were represented:

PASSED		
College	Year Grad.	Per Cent.
Birmingham Medical College	(1898)	84.5
University of Southern California	(1909)	83.1
Hahnemann Medical College and Hospital, Chicago	(1884)	82
Atlanta College of Physicians and Surgeons	(1912)	79
College of Physicians and Surgeons, Baltimore	(1884)	75
College of Physicians and Surgeons, Boston	(1911)	76
University of Louisville	(1912)	81
Tulane University of Louisiana (1910) 76; (1912) 78.2, 80.1, 80.1, 80.6, 81, 82, 82, 83.2, 86, 86.2, 87, 87.4.		
Hospital Medical College, St. Joseph	(1881)	75.8
St. Louis University	(1912)	80
Woman's Medical College of Pennsylvania	(1910)	86
University of Pennsylvania (1910) 84; (1912)		86.1
Vanderbilt University	(1912)	84.5, 86.7
University of Nashville	(1905)	76
University of Tennessee	(1911)	86.7
Meharry Medical College (1909) 83; (1911) 75, 79, 82.5; (1912) 81, 81.8, 83.5, 85.5.		
Baylor University (1912) 76.1, 76.2, 77.6, 77.9, 78, 78.2, 78.7, 81.3, 81.6, 82, 83, 85, 85.8, 84, 87.9.		
Fort Worth School of Medicine (1898) 83; (1912) 77.6, 78.6, 78.8, 79.2, 80, 81, 82.7, 84.2, 84.2, 85, 86.1, 87.		
Southern Methodist University (1911) 81; (1912) 75, 76.6, 78, 78.2, 78.2, 79.3, 80.5, 83.2, 84.4, 85.		
University of Texas (1911) 83; (1912) 78.6, 79.4, 79.6, 79.9, 80, 81, 82, 82, 82.5, 82.8, 83, 83, 83.2, 83.8, 84, 84, 84.6, 84.6, 85, 85, 85, 85, 85, 85.2, 85.5, 85.7, 85.9, 86, 86, 86.1, 86.2, 86.5, 86.5, 86.5, 86.7, 87.7, 88.1, 88.3, 88.5, 89, 89, 89.2, 89.5, 89.6, 90.		
University of Virginia	(1911)	89
University of Toronto, Ontario	(1882)	82
FAILED		
Hospital College of Medicine, Louisville	(1904)	67.3
Meharry Medical College	(1912) 65, 72.4,	*76
Memphis Hospital Medical College		*76.2
Baylor University	(1912) 74.1,	*77
Southern Methodist University	(1912)	*76
Fort Worth School of Medicine	(1912)	66

* Fell below 50 per cent. in two or more branches.

At the examination held in November, the total number of candidates examined was 34, of whom 30 passed including 2 osteopaths and 4 failed. For one candidate who passed the college and year of graduation were not obtained. The following colleges were represented:

PASSED		
College	Year Grad.	Per Cent.
Chicago College of Medicine and Surgery	(1912)	82.6
Northwestern University Woman's Medical School	(1894)	88.3
Keokuk Medical College	(1892)	81.2
University of Louisville (1912) 77.2, 79.8,		80.2
Kentucky School of Medicine	(1903)	90.8
Tulane University of Louisiana (1909) 88.5;	(1910)	83
College of Physicians and Surgeons, Baltimore	(1907)	88.5
University of Maryland	(1912)	87.7
Johns Hopkins University (1910) 89;	(1911)	86.8
St. Louis College of Physicians and Surgeons	(1909)	75.4
Long Island College Hospital	(1905)	88.9
Fordham University	(1909)	76.4
Hahnemann Medical College of Philadelphia	(1900)	86.2
Memphis Hospital Medical College (1910) 75;	(1912)	85.2
Vanderbilt University	(1912)	83.7, 89
Southern Methodist University	(1912)	85.7
Fort Worth School of Medicine	(1912)	83.7
University of Texas (1907) 82.7;	(1911)	87.9
McGill University, Quebec	(1910)	87.9
Ciruyano College, Mexico City	(1874)	79
FAILED		
University of Louisville	(1910)	71.3
Memphis Hospital Medical College (1907) 71.8; (1908) 69.6; (1911) 76.6.*		

Delaware December Report

Dr. Henry W. Briggs, secretary of the Medical Council of Delaware, reports the written examinations held by the regular and homeopathic boards at Dover and Wilmington, Dec. 10-12, 1912. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. At the examination held by the regular board at Dover, the total number of candidates examined was 4, all of whom passed. Five candidates were licensed through reciprocity. The following colleges were represented.

PASSED		
College	Year Grad.	Per Cent.
Medico-Chirurgical College of Philadelphia	(1912)	76.4
University of Pittsburgh	(1912)	90.7
University of Virginia	(1910)	86.2
University of Naples, Italy	(1904)	76.6

LICENSED THROUGH RECIPROCITY		
College	Year Grad.	Reciprocity with
University of Maryland	(1905)	Maryland
College of Physicians and Surgeons, Baltimore	(1911)	Maryland
Jefferson Medical College	(1887)	Penna.
Medico-Chirurgical College of Philadelphia	(1904)	Penna.
University of Pennsylvania	(1911)	Penna.

At the examination held by the homeopathic board of Wilmington, two candidates were examined, both of whom passed. The following college was represented:

PASSED		
College	Year Grad.	Per Cent.
New York Homeopathic Medical Coll. and Hosp.	(1911)	86.6, 89.5

Book Notices

OLD-TIME MAKERS OF MEDICINE. The Story of the Students and Teachers of the Sciences Related to Medicine During the Middle Ages. By James J. Walsh, K.C.St.G., M.D., Ph.D., Dean and Professor of Nervous Diseases and of the History of Medicine at Fordham University School of Medicine. Cloth. Price, $2. Pp. 450. New York: Fordham University Press, 1911.

Dr. Walsh takes up the subject of "Great Physicians in Early Christian Times," "Great Jewish Physicians," "Maimonides," "Great Arabian Physicians," "The Medical School at Salerno," "Constantine Africanus," "Medieval Women Physicians," "Mondino and the Medical School at Bologna," "Great Surgeons of the Medieval Universities," "Guy de Chauliac," "Medieval Dentistry—Giovanni of Arcoli," "Cusanus and the First Suggestion of Laboratory Methods in Medicine," and "Basil Valentine, Last of the Alchemists, First of the Chemists." The last named Dr. Walsh treats with special affection and reverence as "deeply imbued with the old monastic spirit" and characterized by a "fine spirit of sympathy with humanity" and "simplicity of life and purity of intention," especially as compared with his supposed successor Paracelsus. It will be a sad loss to Dr. Walsh's company of medieval scientists if, as indicated by recent investigations on which we shall comment soon, the old "Thuringian monk" proves to be a product of seventeenth-century ingenuity, constructed from fragments of Paracelsus' writings and projected into the past.

His argument is largely intended to show that the decadence of the early Middle Ages was due to the natural shifting of masses of population, and that the one stable element during the period, the medieval church, acted first as the custodian of the traditions of learning and later as the fostering guardian of now forgotten and unappreciated culture. During the later Middle Ages many powerful intellects made beginnings in the science and art of medicine. It may seem to the reader that Dr. Walsh is ready to ascribe to the whole of medieval Europe the light which glowed here and there in a few centers of culture and learning and to assume that science had brought forth ripe fruit, the full corn in the ear, at a time when the first blades were but piercing the soil, for he speaks rather scornfully of "the supposed continuous progress of the race and its marvelous advance." Even by those who cannot fully share Dr. Walsh's enthusiasm, however, it should be admitted that our twentieth-century science was not spontaneously generated, but evolved from far-distant beginnings in the past. To say that these beginnings were small and feeble (we do not accuse Dr. Walsh of saying so) does not imply that they were insignificant or that those who made them were inferior. Each age is, to use Newton's figure, like a dwarf standing on the shoulders of a giant—the mighty Past. Even if the scientific achievements of the Middle Ages were great rather in potentiality than in actuality, this careless and forgetful age is indebted to Dr. Walsh for bringing to light their momentous significance, "for," in the words of the great historian Stubbs, "the roots of the present lie deep in the past, and nothing in the past can be dead to the man who would learn how the present came to be what it is."

DISEASES OF THE EYE. A Manual for Students and Practitioners. By J. Herbert Parsons, D.Sc., M.B., B.S., F.R.C.S., Ophthalmic Surgeon, University College Hospital, London. Second Edition. Cloth. Price, $4 net. Pp. 684, with illustrations. Philadelphia: P. Blakiston's Son & Co., 1912.

Mr. Parsons has thoroughly revised his excellent manual and made many additions to the text and to the illustrations. In some ways this is the most complete and up-to-date of the many manuals of ophthalmology. As one would anticipate, it is very full with respect to the anatomy, physiology and pathology of the eye, and it is all written in a most delightful style. The chapters on physiologic optics and the neurology of vision are excellent, and the descriptions of diseases, operations, etc., exceptionally clear and satisfactory. The illustrations are unusually good, and those by Dr. Head are beautiful. One finds little to criticize, except with reference to treatment. If the work is intended for the guidance of practitioners, as the title suggests, the text is not sufficiently full and explicit in regard to the treatment of some of the commoner affections of the eye. The management of blennorrhea neonatorum, for instance, a condition which is always first seen by the family doctor or the obstetrician, and which still causes 25 per cent. of all blindness, is dismissed in twelve lines. The use of sodium salicylate, in very large doses, in cyclitis and sympathetic ophthalmia, which has proved of such great value in this country, is not mentioned. We believe that experiences with tuberculin as a diagnostic and therapeutic agent warrant a more hopeful view of tuberculous disease of the uveal tract than Dr. Parsons indicates, thereby making enucleation less justifiable. After reading the preceding pages on elementary and physiologic optics, one is surprised to find the following statement on page 73 with reference to the effect of atropin on the eye: "It has so potent an action that it abolishes the tone of the ciliary muscle. Thus, an emmetropic eye placed fully under the influence of atropin becomes hypermetropic to the extent of about 1 D.; this must be taken into account in correcting errors of refraction." This suggests the question: When is an emmetropic eye not an emmetropic eye? If the statement is allowed to stand, it takes away the entire foundation from all accurate refraction work.

THE ANATOMY AND HISTOLOGY OF THE HUMAN EYEBALL IN THE NORMAL STATE. Its Development and Senescence. By Dr. Maximilian Salzmann, Titular Professor of Ophthalmology, University of Vienna. Authorized Translation by Dr. E. V. L. Brown, Instructor in the Pathology of the Eye, the University of Chicago. Cloth. Price, $5. Pp. 232, with 14 illustrations. Chicago: Chicago Medical Book Company, 1912.

As is well known, Salzmann has for many years given courses in Vienna, in German and in English, on the anatomy and histology of the eye. Many Americans have profited by these courses, and no doubt some have been of the number who have urged the author to publish his lectures. We are informed that in authorizing the translation, Salzmann has insisted on the most literal rendition possible, consistent with the English idiom. His loyal pupil and devoted admirer has found a true labor of love in the translation. As one reads, one is convinced that the book is the result of years of painstaking work as student and teacher, and that the author has been satisfied with nothing less than absolute accuracy in so far as it has been possible for him to attain it. The citations from the literature show that he has made use of all available knowledge from the work of others, but one judges that he has accepted little without personal examination and verification.

The asymmetry of the eyeball as viewed from the outside, and the shorter measurements on the nasal side interiorly are features of the work deserving especial mention. The division of the eye into zones as well as into coats for purposes of study is new and has a distinct advantage in clarifying a difficult subject. The clinician will find helps in the author's presentation of the structures of the scleral furrow, the significance of the ophthalmoscopic picture in relation to the anatomy of the posterior segment, the topography of the anterior segment, and the appearances of age in the eyeball. The statements in regard to the suspensory ligament of the lens and its relation to the ciliary body and vitreous are the outcome of Salzmann's individual researches, and are perhaps the most authoritative words which we possess on the subject.

Too much cannot be said of the illustrations; practically all are original, and all are beautiful. They bear the marks of painstaking labor by a master.

DUODENAL ULCER. By R. G. A. Moynihan, M.S. (Lond.), F.R.C.S. Second Edition. Cloth. Price, $5 net. Pp. 486, with illustrations. Philadelphia: W. B. Saunders Company, 1912.

In this edition the author reiterates with emphasis his conviction, which he expressed in the former edition, that hyperchlorhydria means duodenal ulcer, and he presents further evidence bearing on this subject. Moynihan also doubts the diagnostic value of chemical examination of the stomach contents and says: "To say the truth, the results of the chemical examination of the stomach contents in cases of duodenal ulcer are rarely of any value. The results really do not help one to gain any opinion more accurate than that which is procured after a close study of the anamnesis alone." He thinks that the term "hyperchlorhydria," which has come to be used in a general sense, should no longer be so used but should be held strictly to indicate the excess of active hydrochloric acid in the stomach contents.

The chief additions to this edition are found in a chapter on the treatment of "Melena Neonatorum and Duodenal Ulcer," in an entirely new chapter on "Jejunal and Gastrojejunal Ulcer," and in a considerable increase of the matter in the chapter on "Differential Diagnosis." There is also a second appendix in which are found detailed statements of patients operated on in 1909 and 1910.

The influence of more extensive observation and experience is shown now and then by slight modifications in the wording of the text, the effect of which is simply to make more impressive the author's views. One can scarcely read the work and study the cases without being convinced that duodenal ulcer is really a surgical affection.

GENERAL MEDICINE. Edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Chicago Clinical School. Cloth. Price, $1.50. Pp. 404. Practical Medicine Series. Chicago: The Year Book Publishers, 180 N. Dearborn Street, 1912.

This volume of the Practical Medicine Series is up to the usual standard as a review of the literature of medicine during the year 1911. The two subjects of tuberculosis and heart and blood diseases occupy the bulk of the volume. The review of the writings on the newer conception of the disturbances of the heart and circulatory system as studied by means of the electrocardiograph, the *x*-ray and other diagnostic instruments is especially interesting and valuable. The literature on diabetes is also reviewed at some length and in an interesting manner.

MANUAL OF PRACTICAL PHYSIOLOGY. Designed for the Physiologic Laboratory Course in the Curriculum of the American Association of Medical Colleges. By John C. Hemmeter, M.D., Ph.D., LL.D. Cloth. Price, $2.50 net. Pp. 223, with 55 illustrations. Philadelphia: P. Blakiston's Son & Co., 1912.

This book gives the student directions for conducting laboratory experiments. It illustrates demonstrations on animals, such as the frog, showing the effects of electricity and medicines. One chapter is devoted to the examination of the blood, with illustrations of different apparatus for recording the blood-pressure. Another chapter gives experiments showing the effects of the internal secretions on the body. The theories of immunity are discussed, and hemolytic experiments are outlined. The book can be recommended to the laboratory student.

MAKING GOOD ON PRIVATE DUTY. Practical Hints to Graduate Nurses. By Harriet Camp Lounsberry, R.N. Cloth. Price, $1 net. Pp. 208. Philadelphia: J. B. Lippincott Company, 1912.

This is an excellent little book dealing with the problems and difficulties encountered by the nurse who leaves a well-equipped hospital to take up "private duty," for which in most instances she has not had suitable or adequate training.

Medicolegal

Selection of Physician and Services Recoverable for in Injury Case

(Hunt vs. Boston Terminal Co. (Mass.), 98 N. E. R. 786)

The Supreme Judicial Court of Massachusetts holds that where a person is injured by another's negligence, and uses reasonable care in selecting a physician to attend him and in following his directions, then the one guilty of negligence is liable for the resulting injuries even though a higher degree of medical skill might have minimized the injuries. If the appearance of the patient's body resulting from the defendant's wrong, together with an honest and fair statement of his feelings and sensations, are such as sometimes in common experience might cause an attending physician, selected in the exercise of reasonable prudence in view of the seriousness of the injury, to believe that a certain physical condition existed, and to give treatment in accordance with that belief, then the defendant will be responsible even though subsequent developments may demonstrate that the supposed physical condition in fact did not exist, and would not have been supposed to exist by a physician more skilful, experienced or highly trained, and even though the injury may be aggravated by the treatment in fact given. The causal connection is not broken under these circumstances, though one or even two surgical operations may have been performed. And in an action by a husband to recover compensation for expenses incurred by him in consequence of an injury to his wife occasioned by the negligence of the defendant, an instruction was correct which told the jury that it made no difference how much the plaintiff had paid for surgeons and physicians, he could only recover the fair value of such services so far as they were rendered in the treatment of physical ills resulting from the defendant's tort, and that he could not recover unless the services rendered were such that the physicians, if plaintiffs in an action against him, could recover, and that his right of action was measured only by his legal obligation to pay them.

Employer Furnishing Treatment Out of Charity

(Allegar vs. American Car & Foundry Co. (U. S.), 198 Fed. R. 447)

The United States District Court, in Pennsylvania, does not consider that a case of liability was made out against the defendant company. It says that the plaintiff's leg was broken at about 3 o'clock in the morning, while engaged at the company's works. The latter's employees, immediately after the accident, took the plaintiff to the company's emergency hospital, and from thence to a public hospital, for medical and surgical aid. The plaintiff said that he protested against being so taken, and requested to be carried to his home, a quarter of a mile away, and there have the services of his own physician, living some nine or twelve miles distant. His limb was set and treated at the public hospital by a physician, and, after remaining there a short time, he was taken to his home. The limb at present shows some deformity and occasions suffering. It appeared in the case that whatever was done at the time the plaintiff was taken to the public hospital was prompted by the purest motives of charity, and intended for his comfort and personal benefit. It was not made to appear that there was negligence in the selection of the place and the means for treatment of the plaintiff. Nor was negligence to be inferred from the condition of his leg. This may have resulted from the physician's negligence, even though due care was exercised in his selection. That it was the lack of due care in

the employment of a prudent physician, occasioning the suffering, was not made to appear. Even where it is shown that an employer undertakes, as a pure matter of charity, to furnish medical treatment to sick or injured employees, due care need be exercised only in the employment of a prudent physician. The employer is not liable beyond this for the negligence of the physician employed. Again, there was no evidence warranting the jury in finding that the plaintiff was treated by the physician in charge at the public hospital at the request or by consent of the defendant. Too much was left for inference. Where the charge of negligence is relied on for recovery, as in this case, it must be clearly shown that the one called on to answer has been at fault.

Society Proceedings

WESTERN SURGICAL ASSOCIATION

Twenty-Second Annual Meeting, held at Cincinnati, Dec. 20-21, 1912

(Concluded from page 238)

Ventral Tumors of the Sacrum

DR. ARTHUR AVER LAW, Minneapolis: In this case a large tumor shows a loose, rapidly growing connective tissue stroma in which nests of embryonic cells grow in syncytial-like masses suggesting malignancy in their manner of growth and appearance. Areas of hemorrhage, necrosis and calcareous degeneration demonstrate the atypical character of the tissue, its rapid development and imperfect blood-supply. A smaller tumor suggests a neuroma in its general characteristics, although neuroglia fibrils have not yet been demonstrated. That the tumor springs from some misplaced remnants of the terminal portions of the neural tube seems a logical conclusion. That portions of it have developed abnormal powers of proliferation and show signs of malignancy change, while other portions have in an imperfect manner reproduced the adult type of nerve tissue, is the only explanation which apparently explains these rather widely diversified tumor masses.

DISCUSSION

DR. E. S. JUDD, Rochester, Minn.: Since Dr. Law has called my attention to this case, I have reviewed our own cases of retroperitoneal tumors and found in the list five cases that, in some respects, are similar to Dr. Law's case. Of the five patients three were operated on by W. J. Mayo, one by C. H. Mayo, and one by myself. One patient was a woman, aged 44, who came to the hospital complaining of constipation and bleeding from hemorrhoids. A tumor the size of an orange could be felt by vagina and rectum; it came to the midline in the pelvis and extended to the right side. Examination otherwise was negative. Wassermann was negative. At operation, through an abdominal incision we found a retroperitoneal tumor apparently growing from the right wall of the sacrum, about the second foramen, bulging out as a tumor the size of an orange under the periosteum and deep fascia, lying between the upper rectum and lower sigmoid and cervix, completely filling that portion of the pelvis. The abdomen and the posterior peritoneum and floor of the pelvis to the right were opened; this tumor, which resembled a hypernephroma, was enucleated and most of the capsule removed. It appeared to be broken down; in the sacrum near the third foramen was an opening the size of the end of a finger, through which the pedicle of the tumor seemed to go. Report of pathologist, inflammatory.

A second patient, a woman, aged 57, had rectal tumor; incontinence; six months before, hemorrhage from bowel; pain and rectal spasm frequently since; bowels gradually became obstructed, and now almost unable to have bowel movements. She lost 10 pounds in weight; had radiating pains from sacral area to thighs and vagina. Examination disclosed a tumor posterior to the rectum. Posterior incision was made at the lower end of the sacrum and all of coccyx removed which was involved in the tumor. The tumor, size of an apple, was apparently a sarcoma of the anterior surface of the lower end of the sacrum and upper coccyx. The third, fourth and fifth sacral vertebrae were involved. The tumor had perforated posteriorly and a large amount of soft sarcomatous tissue had escaped into the hollow of the sacrum. Report of pathologist, giant-celled sarcoma.

DR. JABEZ N. JACKSON, Kansas City, Mo.: I have observed two cases of ventral tumor of the sacrum of two different types. One was exceedingly interesting; the patient, aged 26, was under observation primarily for the purpose of cesarean section. She had a tumor behind the rectum which was recognized some time before pregnancy by a country doctor who warned her at the time not to permit herself to become pregnant. She was in labor forty-eight hours, but as things were not progressing as they should, he at once brought her to Kansas City for operation. Cesarean section was done, followed by hysterectomy. The tumor presented itself a little to the left of the rectum; it turned to the right slightly as well as anteriorly. When the peritoneum was split the tumor was enucleated with practically no bleeding, and after enucleation it showed no apparent point of attachment whatsoever, except that when shelled out the whole anterior surface of the formation of the sacrum was revealed; but it was enucleated without the presence of a pedicle or without definite knowledge as to its original point of development. It was a solitary cyst which on pathologic examination was found to be a simple cyst without a determination of what elements could have been the original focus.

The second patient who came under observation was a man, aged 45. He complained of pain in the lower pelvis, particularly about the rectum during defecation, and of some pains which radiated down the limb, until his physician thought there might be some trouble about the hip-joint. On rectal examination a tumor could be outlined near the lower end of the rectum about the size of a small orange. In operating I made an incision laterally, but on entering the tumor found the fluid cystic. It seemed that some inflammatory secondary condition had taken place, and the wall was so friable it was impossible to make any enucleation whatsoever. We removed certain portions of it and packed for drainage.

How Diseased May the Gall-Bladder Be and Still Functionate?

DR. B. B. DAVIS, Omaha: Certain conditions that are often found at operation are bound to destroy normal function for all time. Undue narrowing or complete obliteration of the lumen of the cystic duct makes a continuation of the function of the gall-bladder impossible. If the obstruction is incomplete, bile will slowly flow in, but the process of emptying is so retarded that stagnation, which always invites infection, is sure to occur sooner or later. Although safe and efficient delivery of the bile through the hepatic and common ducts into the duodenum can be carried on by the other forces without its aid, it can be done more effectually and with less liability to damming up of the current when accelerated by a perfectly functionating gall-bladder. I would, therefore, be the last to recommend indiscriminate removal. Removal ought never to be done unless the organ is so badly damaged that its function will be permanently lost. Drainage operations are not followed by the uniformly good results that ought to be obtained. Many of the unfavorable results might be avoided by a more thoughtful consideration of the capacity of the gall-bladder with which one is dealing to carry on its functions.

DR. CHARLES H. MAYO, Rochester, Minn.: Often we take out the gall-bladder when we should leave it. When a patient complains afterward and comes back to us for a secondary operation, we say that the gall-bladder ought to have been removed. In about half of such cases we find that the gall-bladder ought to have been removed at the first operation. In the other half we find an enormous mass of adhesions; we find the duodenum adherent to the liver and scarred; the pylorus adherent to the gall-bladder and margin of the liver. We say that we wish we had done something to prevent those adhesions, not thinking at the time that those are the adhesions which make secondary symptoms; that that particular gall-bladder was not diseased, but that adhesions occurred on account of bad surgery.

V. 6
1913

Pyelotomy for the Removal of Renal Calculi

This paper, by Dr. Daniel N. Eisendrath, Chicago, will appear in THE JOURNAL.

Radical Cure of Inguinal Hernia

DR. WILLIAM HESSERT, Chicago: Our choice of operative technic should be determined by the anatomic findings. We have all seen cases in which it would have been impossible to perform a typical Bassini operation. Owing to the absence of the conjoined tendon and the high insertion of the muscles into the rectus, the former could not be brought down to Poupart's ligament, without creating too much tension. Either the muscle would tear at once or necrosis would occur later. Attention has been called to the fact that this inner portion of the canal should be especially fortified against recurrence. The technic which is best adapted to meet the requirements of these cases is the imbrication modification of Andrews. By bringing down to Poupart's ligament the edge of the fascia of the external oblique and as much of the muscle as possible, we secure a very firm covering for this weak area, which is further fortified by the overlapping of the lower flap of fascia. In cases in which the triangle is especially large, or the external oblique aponeurosis is especially thin, the Bloodgood technic will be found of service. By incising the edge of the rectus sheath, the fibers are exposed and a portion of the muscle can be brought down and sutured to Poupart's ligament, thus supplanting the conjoined tendon which is absent. The operation can be completed by following the Andrews technic.

The conjoined tendon is deficient or absent more commonly than has been generally taught. This anomaly supplies an important predisposing factor in the development of direct hernias, and probably plays a certain rôle, though a minor one, in the etiology of oblique hernias. The presence of this defect precludes the performance of the Bassini operation as a routine, except in children. The Andrews imbrication method best fulfils the indications regardless of whether the tendon is present or absent. The Bloodgood transposition of the rectus is an excellent aid when required.

DISCUSSION

DR. C. M. NICHOLSON, St. Louis: In probably five cases out of ten that have come under my observation there has been a separation of the aponeurosis of the external oblique, and the intercolumnar fibers could be seen plainly a distance of an inch and a half. If the trouble is due in a large percentage of cases to the absence of any structure, it seems surprising that clinically we obtain such excellent results by doing some modification of the Bassini operation, probably infolding in accordance with Ferguson's suggestion. I feel sure that in something over five hundred herniotomies, not strangulated or complicated, but simple hernias, I have seen but three recurrences, and these were all due to a condition other than that described by Dr. Hessert. All three were in children and were due to a lack of development of the external oblique muscle. I have therefore come to the conclusion that the hernia was not due to a preformed sac, except in that variety of hernia which we know is congenital, that is, irrespective of the time it forms.

DR. A. E. BENJAMIN, Minneapolis: I think that Dr. Hessert is right in his conclusion that the conjoined tendon is often absent. It has been my practice in these cases to transplant the fat; after tying it off I pass it back of the transversalis and bring it up high, so as to have the intra-abdominal pressure in the sac after that comes against the transversalis muscle. In that way, we take off the strain; but the fibers of the transversalis and internal oblique I have brought underneath Poupart's ligament with modified Halsted mattress sutures, bringing that out through the skin. This frequently was done because at the time we first developed the operation we did not have suitable catgut or suture material which we could rely on. At present this does not obtain.

DR. F. GREGORY CONNELL, Oshkosh, Wis.: I have encountered the absence of the conjoined tendon. In these cases we have a direct hernia of the deep epigastric vessels formed under the internal margin; the internal ring, while not bulging, is below. We might call it a ventral hernia rather than inguinal, as it is not inguinal in the strict sense of the word in that it does not come through the inguinal canal.

DR. M. L. HARRIS, Chicago: I am fully convinced that all hernias that develop in the active period of life are congenital in origin. By this I mean that they are due to congenital defects. I will exclude the hernias—the simple hernias—that develop in the aged, coming at a period of life when there is general atrophy and wasting of the tissues. Every hernia developing in the inguinal region during the active period of life has its origin in a congenital defect. I have had the opportunity of operating in several so-called traumatic hernias that appeared soon after an injury or a fall. In every one of these I have found congenital sacs, and there has never been any difficulty in determining after the operation that the sac was of congenital origin. The absence of the conjoined tendon is a material factor in the causation of hernias.

DR. DANIEL N. EISENDRATH, Chicago: In addition to the fact oftentimes of lack of development of the conjoined tendon or atrophy of the fibers of the internal oblique, this condition is found when the conjoined tendon is fairly well developed. We find it in stout persons who have attenuated oblique muscles, in whom there is practically only white muscle; and lying between the white fibers we find quite a lot of fat. What good does it do to perform the old Bassini operation? To do so would invite disaster. Those who are acquainted with the operation have adopted as a routine method the Wyllys Andrews method of imbrication of the muscles because it has a tremendous advantage.

DR. WILLIAM HESSERT: I do not assert that the absence of the conjoined tendon is the cause of hernia, except as having a certain bearing on the formation of direct inguinal hernias. I think that Dr. Harris put the matter tersely when he said that the hernias which occur during young adult life are based on certain developmental defects. It is either a congenital hernial sac or some developmental defect, such as absence of the conjoined tendon or peritoneal muscles or fascia in this region. Added to that, we must have the predisposing factors which bring down the hernia.

Spinal Anesthesia

DR. J. W. ANDREWS, Mankato, Minn.: Cocain is the best spinal anesthetic. The solution used should be weak; 0.5 to 1 per cent. is strong enough. The lumbar spine is the regional point of election for spinal puncture. Under spinal anesthesia the tissues will not bear pulling or tearing. Pulling or tearing or roughly handling living tissue is bad surgery. Busy surgeons cannot use spinal anesthesia.

DISCUSSION

DR. JAMES E. MOORE, Minneapolis: The chief objection to spinal anesthesia is its danger. Spinal anesthesia was first suggested by Corning, and was first put into practice by Bier in 1898, who abandoned it for a time on account of the mortality connected with it. In 1903 and 1904 stovain and novocain were introduced. At present novocain is the favorite drug for this purpose. In the University of Minnesota we use no other drug for local or spinal anesthesia. So far, we have had no mortality and no uncomfortable symptoms. We have used it locally for hernia operations and the like.

DR. M. L. HARRIS, Chicago: The element of time is a factor in the ill effects of an anesthetic. You can kill any animal by keeping him under an anesthetic for a certain length of time, and if the quantity is the same the animal will inevitably die. The changes are in direct proportion to the time in which the anesthetic is given.

DR. A. W. ABBOTT, Minneapolis: We have been making some experiments in reference to ether as compared with nitrous oxid, and for two or three years I have kept records of these cases with reference particularly to the results on the kidneys. In many instances we have been able to secure the urine in from ten to fifteen minutes after ether anesthesia is begun, and we find that a slight albuminuria is produced. It is not 1 per cent. or 10 per cent., but every one of the cases has had a slight albuminuria. As a general thing, casts begin to show

in the urine taken in the course of an hour. My experience in that line directly corresponds with what Dr. Harris has said, namely, that an amount of injury to the kidney follows in proportion to the length of time you give the anesthetic. The longer you give it, the greater the amount of albumin, and the more abundant the casts. We have the records of one hundred of these anesthesias, and I believe what I have stated is absolutely correct. This applies in a minor degree to nitrous oxid with oxygen, which we have used a great deal. It is followed by the same disturbances. Whatever anesthetic we use, we are going to have kidney complications, and that is a good reason why we should get through with an operation as quickly as possible and not keep the patients under the anesthetic any longer than necessary.

DR. L. L. MCARTHUR, Chicago: It takes seven times as much novocain per kilogram of body-weight as it does cocain to kill. So far as their anesthetic properties are concerned, they are practically identical. Novocain is now the drug universally used on the Continent and in England, instead of cocain, on the basis of its toxicity.

Coexisting Infection and Sarcoma of the Thyroid

DR. MILES F. PORTER, Fort Wayne, Ind.: Sarcoma of the thyroid is very rare, and sarcoma complicated with infection still more rare. Only eleven cases are reported in the United States to June, 1906. A previous history of goiter exists in 53 per cent. of cases of malignant thyroid (carcinoma and sarcoma), and in half of these for more than ten years. Two-thirds of the cases were in women, and 53 per cent. of the patients were between 40 and 60 years of age. Metastasis of sarcoma of the thyroid by way of the lymphatics is not infrequent. The neighboring bones are frequent seats of metastasis. It is difficult to differentiate between the round-cell variety and lymphosarcoma. Complete destruction of the gland tissue by sarcoma is quite common. Sudden growth of an old goiter, especially if accompanied with pain, is significant of malignant invasion, as is hemorrhage into a goiter. Careful examination of all goiters removed will develop the fact that malignancy is more frequent in the thyroid than it is now supposed to be.

Boning of the Thoracic Precardial Wall in Certain Affections of the Heart

DR. JOHN E. SUMMERS, Omaha: Cardiolysis is done for the purpose of easing a heart musculature which is constantly being strained by the tugging of the heart against the chest wall because of adhesions between the pericardium and its neighboring organs—mediastinum, diaphragm, pleura, or sternochondrocostal wall. Brauer conceived the idea that it would be of advantage to remove the unyielding, bony precardial wall, changing it "into a movable elastic wall formed solely by musculocutaneous flaps," which also gives a hypertrophied organ more room in which to work. This idea was carried out by Peterson and Simon first, in 1902. Very weak hearts will not be benefited by this operation; the patient must be one whose heart responds to medication and relief from all strain; this is the most important indication for operation and it must be positive. The more evident the sign of tugging, the better the condition of the heart muscle, and the more surely will relief come to it if the overlying bony wall is removed. In J. F., a florist aged 29, illness began gradually, three years before, with "bloating," tiring easily, and shortness of breath on exertion. His condition became rapidly worse until he was entirely incapacitated. At the time of consultation all of the symptoms which characterize a hypertrophied heart with costopericardial adhesions were positive. There were marked damming-back symptoms (*Stauungserscheinen*), ascites, a moderate general anasarca, etc. The patient was placed in the hospital and in three weeks' time compensation was restored, the heart action became regular, the murmur disappeared, and the heart sounds became clear. A few days later, March 13, 1912, cardiolysis—boning of the thoracic precardial wall—was performed, with the double purpose of easing the heart by doing away with the adhesions to the chest wall, and of giving the enlarged organ more room. Convalescence was uneventful, and to-day the man is in good health, although, of course, not sound. From the literature which is all foreign, the most favorable cases and the only ones in which one can speak of the real, lasting relief, are those which it is possible to keep under observation for a fairly long time after the operation, as in this instance; in all cases, however, in which the symptoms point positively to operation, there is no question that amelioration takes place immediately, or shortly after the operation. The study of the failures is important because it serves to establish the exact indications and contra-indications for operation; in all these, either the index for operation was not positive, or there were other complications.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

American Journal of Urology, New York

December, VIII, No. 12, pp. 607-652

1 Anatomy of Kidney. C. W. Bonney, Philadelphia.
2 Limitations of Cystoscope. G. S. Whiteside, Portland, Ore.
3 Surgery of Kidney: Based on Case Records of Ten Years. J. F. Baldwin and H. A. Baldwin, Columbus, Ohio.
4 Hypernephroma in Horseshoe Kidney. T. R. Wolff, Helsingfors, Finland.
5 Sexual Impotency in Male. V. Blum, Vienna.

Annals of Surgery, Philadelphia

January, LVII, No. 1, pp. 1-144

6 *Gastrocoloptosis. T. Rovsing, Copenhagen.
7 New Principle in Esophagoscopy and Gastroscopy. R. Lewisohn, New York.
8 *Intratracheal Insufflation Anesthesia. F. J. Cotton and W. M. Boothby, Boston.
9 *Anesthetic Effects of Intravenous Injection of Paraldehyd. H. Noel and H. S. Souttar, London.
10 Traumatic Rupture of Spleen (Complete); Splenectomy. A. M. Fauntleroy, U. S. Navy.
11 Spontaneous Rupture of Malarial Spleen. L. Noland and F. C. Watson, Panama, Canal Zone.
12 *Use of Murphy Button to Effect Duodenojejunostomy After Gastrojejunostomy. W. Bartlett, St. Louis.
13 Ileus Due to Meckel's Diverticulum. A. B. Eustace, Chicago.
14 Extrasaccular Hernia. A. J. Walton, London.
15 *Instrument for Establishing Fecal Drainage. W. C. Lusk, New York.
16 Rupture of Sprain Fracture of Ligamentum Patellae. W. H. Luckett, New York.
17 Method of Focusing Several Electric Lights on Field of Operation. W. Bartlett, St. Louis.

6. Appeared in THE JOURNAL, August 3, p. 334.

8. **Intratracheal Insufflation Anesthesia.**—Intratracheal insufflation respiration, according to Cotton and Boothby, is the only artificial method that absolutely provides for a sufficient aëration of the lungs, regardless of the respiratory movements of the patient, and that properly administered and safeguarded can be rendered devoid of intrinsic danger. In consequence, anesthesia by this method is held to be indicated whenever the operation is about to interfere in any way with the ability of the patient to respire voluntarily. Therefore it ought to be used in all intrathoracic work and in extensive operations about the head, neck and mouth. Of the various anesthetics to be used with this method, ether with air, preferably applied by a foot pump, is regarded by the authors to be the most applicable for general use; however, nitrous oxid-oxygen with minimal quantities of ether may occasionally be the anesthetic of choice. To prevent deaths from emphysema, no matter what form of apparatus is used, the same must be provided with a safety-valve by means of which the intrathoracic pressure cannot exceed 15 mm. mercury.

9. **Anesthetic Effects of Paraldehyd.**—The authors mix 5 to 15 c.c. of paraldehyd with an equal amount of ether and dissolve the mixture in 150 c.c. of a cold 1 per cent. solution of sodium chlorid in sterile distilled water free from dead bacteria, or, in default of this, in ordinary boiled tap water. The solution should be perfectly clear after shaking. It is placed in a sterile bottle with a rubber stopper through which pass two glass tubes. To one of these tubes a bellows is attached. The other reaches to the bottom of the liquid and leads off by a long rubber tube to a fine hypodermic needle. The solution may be injected cold or at a temperature not exceeding 25 C. The patient's arm being surrounded with a light tourniquet

V. 6
1913

bandage, a prominent vein is selected, the skin is cleansed with ether and the needle inserted. A back flow of blood through the needle into a glass tube in the rubber connection shows that the vein has been entered. The tourniquet is removed, the bellows worked and the fluid is steadily driven into the vein at the rate of 5 to 10 c.c. per minute.

The following phenomena are observed: In five seconds the patient tastes paraldehyd. In ten seconds it can be detected in the breath. The patient has a sensation of general warmth. In twenty seconds the patient has a sensation of floating and perhaps of slight dizziness. In thirty seconds consciousness is disappearing. In forty seconds unconsciousness is complete. In sixty seconds the patient is deeply unconscious. In ninety seconds the corneal reflex is absent and anesthesia is complete. Reflex movements may, however, occur. Up to this point about 5 c.c. to 10 c.c. of paraldehyd will have been given and small operations, such as removing teeth or suturing wounds, may be performed. The drug is, however, excreted by the lungs with great rapidity, and for a lasting effect the whole 15 c.c. will usually be required. The latter effects of the drug depend largely on the amount given. The dosage is under absolute control, and hence there is never any danger from an overdose. The moment injection ceases the effect of the drug begins to pass off as the drug itself pours out through the lungs. The authors, therefore, consider the use of intravenous paraldehyd to be practically safe, and have ventured to use it as a hypnotic in cases of grave cardiac and pulmonary disease with perfect success.

12. **Duodenojejunostomy After Gastrojejunostomy.**—Being forced to devise a method of short-circuiting the duodenum, Bartlett exposed the stomach and made an incision in the anterior wall of this structure, allowing access to the gastroenterostomy opening in the posterior wall. With a hysterectomy clamp, one-half of a Murphy button was introduced through the opening in the posterior wall into the duodenum, then the other half of the button was introduced into the jejunum. Two small incisions were made through the intestinal wall, exposing the neck of each half of the button. Then the two portions of the bowel contiguous to the gastroenterostomy opening in which the halves of the Murphy button had been placed were brought together and a short circuit established by telescoping the two halves of the button. The method was extremely easy to accomplish, the only difficulty experienced being in protecting the field with packs. Following the operation, the patient vomited only once before leaving the hospital, and that a few hours after operation.

15. **Instrument for Establishing Fecal Drainage.**—The principle employed by Lusk in the construction of the instrument consists in the mechanical compression of the whole thickness of the bowel wall in a circle around a perforation in the bowel, between a ring introduced within the bowel and a cap closing over the ring from without, which maintains a watertight joint around the perforation a sufficient length of time for protecting adhesions to take place between the bowel outside the area grasped by the instrument and the abdominal wall, before the instrument cuts through the tissues it compresses. This mechanical device does away with suture of the intestine to the abdominal wall, the bowel being held in position instead by tying the instrument grasping it, into the wound. The instrument has been tested in five normal dogs and in one case of intestinal obstruction in man. The operations were all performed under general anesthesia. In every instance adhesions formed between the bowel outside the area grasped by the instrument and the wound in the abdominal wall, without any infection of the peritoneal cavity.

Archives of Pediatrics, New York

December, XXIX, No. 12, pp. 881-951

18 *Treatment of Hemorrhagic Disease of New-Born. B. Vincent, Boston.
19 *Pyloric Obstruction With Comparative Study of Normal Stomach of Infants. G. R. Pisek and L. T. Le Wald, New York.
20 Objective Method of Teaching Food Values and Food Requirements. C. B. Farr, Philadelphia.
21 Method of Scoring Viability of Infants Under Care of Hospitals and Infants' Welfare Organizations. H. L. Coit, Newark, N. J.

18 and 19. Abstracted in THE JOURNAL, January 4, p. 74.

Boston Medical and Surgical Journal

January 9, CLXVIII, No. 2, pp. 37-72

22 *One Hundred and Ten Cases of Renal and Ureteral Calculi and Ten Cases Simulating These Conditions. F. S. Watson, Boston.
23 Some Results of Dispensary Work in Control of Tuberculosis. C. Floyd, Boston.
24 Sacrifice to Asklepios: A Mime of Herondas. R. M. Green, Boston.
25 Treatment of Hypospadias. H. A. Lothrop, Boston.

22. **Renal and Ureteral Calculi.**—The following is a summary of the medical treatment mentioned by Watson: For renal colic the combined use of ether inhalations and moderate doses of morphin. Heat to the affected side. An abundant supply of water to be drunk. Liquid or milk diet.

To aid in expulsion of calculus from the kidney the treatment far the most successful in the writer's experience is: Spirits turpentine in 10 minim doses in gelatine capsule t.i.d. Diet of milk, each tumbler diluted one-quarter part with water, milk to be slightly warmed and drunk slowly. Fish and dry toast may be taken once daily. Patient is to rest recumbent during the regimen and to take occasional hot sitz baths. Treatment to last six days consecutively, then after a two-days' interval it is repeated once or twice, if necessary. After one month or six weeks of this treatment at most, if the stone has not passed, it should be removed by surgical operation. In every case in which the patients were freed from their calculi by medical treatment, cure was absolute and in twenty of them the patient's subsequent history was followed from three to twenty years subsequently. In but a very small number of these—six—was there any recurrence of the trouble. These patients got rid of their recurring calculi under the same treatment as was employed in the first instance. In seven of the cases treated medically there was failure to cause the calculus to pass. These patients were operated on successfully later. In 87 per cent. of Watson's fifty-four patients thus treated, in which the calculus was small enough to pass through the ureter, it was spontaneously expelled, while the patients were under medical treatment.

		Deaths	Cures
Number of patients operated on	56	..	..
Nephrolithotomies	36	2	34
Subsequent nephrectomies	2	0	2
Ureterolithotomies	8	0	8
Nephrectomies in cases simulating renal calculus	3	1	1
Nephropexy in same class of case	1	0	1
Freeing ureter of adhesions	2	0	2
Splitting capsule—nephralgia	2	0	2
The same for acute congestion	2	0	2
	56	3	53

Operative mortality for total number is 5.3 per cent.

California State Journal of Medicine, San Francisco

January, XI, No. 1, pp. 1-38

26 Tolerance of Vitreous to Dislocated Lenses, as Index to Reclination in Given Cases. P. de Obarrio, San Francisco.
27 Neuroses of Mouth and Throat. M. W. Frederick, San Francisco.
28 *Urinary Tract Infections in Women. D. Hadden, Oakland.
29 Gastrotomy With Removal of 1,149 Foreign Bodies. Recovery. A. C. Matthews, Napa.
30 Milk Supply of San Francisco and Its Bacterial Content. E. E. Hutshing, San Francisco.
31 Importance of Non-Diabetic Acidosis. E. C. Fleischner, San Francisco.
32 Transfusion. N. H. Chamberlain, Oakland.
33 Epidemic Poliomyelitis. P. K. Brown, San Francisco.
34 Diagnosis of Tuberculosis of Skin. D. Friedlander, San Francisco.
35 Post Operative Acidosis. C. G. Levison, San Francisco.

28. **Urinary Tract Infections in Women.**—Hadden believes that urinary tract infections in women are usually associated with improper drainage on account of ptosis in some part of the tract or a relative ptosis produced by the displacement of an adjacent organ. The infection must occur in many cases autogenously, as mechanical interference can be frequently excluded. Any operation that weakens the bladder supports, or which may produce adhesions between the bladder and uterus gives a favorable condition for a chronic urosepsis, and consequently offers a serious objection to any anterior plica-

tion operation. In many cases a bacteriologic examination only will give the diagnosis, as albumin and pus are variable constituents, but it must be made from a catheterized specimen when no urinary antiseptics are present in the urine. When vaccine treatment has cleared up or improved the infection, operative work is necessary to correct the sag and cure the patient's symptom habit, as well as to prevent further auto-infection. In some cases operative work alone will increase the patient's resistance and result in a cure of the infection.

Cleveland Medical Journal

December, XI, No. 12, pp. 859-938

36 Persistent Priapism in Splenomyelogenous Leukemia. H. O. Roh, Cleveland.
37 Surgical Management of Certain Cases of Calculous Obstruction of Common Duct of Liver. W. D. Hamilton, Columbus, Ohio.
38 Eugenics: Rearing of Thoroughbred. H. E. Jordan, Charlottesville, Va.
39 *Pills and Other Drugs Versus Drugless Medication. N. Rosewater, Cleveland.
40 Three Cases of Foreign Body in Eye. C. C. Stuart, Cleveland.
41 Orthostatic Albuminuria. V. C. Rowland, Cleveland.

39. **Drugless Medication.**—This paper is a defense of drug treatment. Rosewater says: "I have no desire to place the use of drugs before anything and everything. All physicians agree in letting well enough alone, as they feel assured that the patient will accomplish just as much or more alone. But I enter this protest against our own colleagues prejudicing their patients and friends against those of us who prescribe drugs, by telling them, as I have heard they often do, that they had been drugged almost to death, that their systems are saturated with drugs, etc. When the public later on learn to know the truth, they will see behind such expressions prejudice, ignorance or malicious 'knocking.' Let us teach, rather, the true value and almost universal harmlessness of medication when properly directed by a competent physician, its shortness of stay in the body, etc. Let us teach, rather, the antidotal or eliminative nature of medicines to poisons either already in the body or being daily taken in but insufficiently antidoted; their use to replace substances natural or necessary to the body, but deficient or absent during disease, such as the internal organic secretions, hormones, antibodies, ferments, iron, calcium, etc. In other words, instead of a false, malicious dogma, teach the truth. Of late again this false cry is raised against drugs by those protesting that Nature provides her own defenses and antidotes, but in our study of Nature we find her both efficient and inefficient according to each individual situation. Just as a plant, which in time of drouth droops and fails, although ordinarily well able to grow and prosper, requires the gardener's hose intelligently applied to keep it from withering; just as a young sapling bent by the winds or by some abnormal defect can be made to grow straight and strong by propping it up until it grows stronger; just as certain soils require fertilizers, so does the human plant require the specific aids its defects demand. The plant needing fertilizers or water will not be saved by prayer or massage or Christian Science; nor will the human plant, needing calcium or iron, find a substitute in electricity or in jolly disposition or wish. As to those who do not like to give drugs (usually from ignorance of their value or application), faith eurists, Christian Scientists, osteopathists and other 'pathists,' who start out prejudiced against any other treatment than their own exclusive pathy, they have indeed a very narrow point of view from which they study Nature. The physician of to-day, trained as a true student of Nature, recognizes no exclusive road or pathy; every new instrument, drug, application or method, psychic or otherwise, is only one more weapon in his great armamentarium; nothing is so insignificant as to be despised if it can aid. The unfortunate sick are indeed to be pitied if they fall into the wiles of one of these one-sided 'ists' who boasts of the greater value of his 'ism' and fails properly to appreciate Nature's harmonious forces used with intelligence to suit each case. A physician graduating from our modern medical schools, where he is trained in all the sciences and taught the relative value and place for each, has an effectiveness compared to one of these pathists as the music of a full orchestra compared to that of the single string of a fiddle. There are times when a specialist is required—one skilled in one of the branches of our art. He should, however, not be credited with greater knowledge or skill than his attainments warrant. I say this not in disrespect to any 'ism' or 'ist,' but because it is necessary to show the comparative merits of regular physicians whom some of these pathists aim to discredit and displace."

Journal-Lancet, Minneapolis

January 1, XXXIII, No. 1, pp. 1-32

42 Appendicitis With Symptoms of Diseases of Urinary Tract. J. D. Whiteside, Aberdeen, S. D.
43 Review of 150 Cases of Appendicitis. S. M. Hohf, Yankton, S. D.
44 Diagnosis of Kidney Tuberculosis. A. C. Strachauer, Minneapolis.
45 What Not to Expect of Medical School Inspection at This Time. C. H. Schroder, Duluth, Minn.

Journal of Biological Chemistry, Baltimore

January, XIII, No. 1, pp. 393-532

46 Intensity of Urinary Acidity in Normal and Pathologic Conditions. L. J. Henderson and W. W. Palmer, Boston.
47 *Enzyme Synthesis. I. Lipase and Fat of Animal Tissues. H. C. Bradley, Madison, Wis.
48 Idem: II. Diastase and Glycogen of Animal Tissues. H. C. Bradley and E. Kellersberger, Madison, Wis.
49 Idem: III. Diastase and Starch of Plant Tissues. H. C. Bradley and E. Kellersberger, Madison, Wis.
50 Idem: IV. Lactase of Mammary Gland. H. C. Bradley, Madison, Wis.
51 Action of Yeast on Yeast Nucleic Acid. S. Amberg and W. Jones, Baltimore.
52 *Animal Calorimetry: Metabolism of a Dwarf. F. H. McCrudden and G. Lusk, New York.
53 Refractive Indices of Solutions of Certain Proteins: Globin. T. B. Robertson, San Francisco.
54 Sulphatid of Brain. P. A. Levene, New York.
55 Sugar Tolerance in Pig. A. J. Carlson and F. M. Drennan, Chicago.
56 *New (Colorimetric) Method for Determination of Uric Acid in Blood. O. Folin and W. Denis, Boston.
57 New Colorimetric Method for Determination of Epinephrin. O. Folin, W. B. Cannon and W. Denis, Boston.
58 Nephelometry in Study of Proteases and Nucleases. P. A. Kober, New York.
59 Preparation and Properties of a Compound Protein; Globin Caseinate. T. B. Robertson, San Francisco.
60 Nucleases. P. A. Levene and F. B. La Forge, New York.
61 *Biochemistry of Female Genitalia. II. Lipins of Ovary and Corpus Luteum of Non-Pregnant Cow. J. Rosenblood, Pittsburgh.
62 Fate of Prolin in Animal Body. H. D. Dakin, New York.
63 *Seasonal Variation in Iodin Content of Thyroid. A. Seidell and F. Fenger, Washington, D. C.

47. **Lipase and Fat of Animal Tissues.**—Bradley holds that no broad correlation exists between the fat and lipase content of tissues. Homologous organs in allied species, such as teleost livers, fish muscles, etc., show no parallelism between fat and enzyme. Some of the most active fat-producing tissues are relatively poorer in lipase than many other tissues which never normally contain or produce more than a small percentage of fat. Active mammary tissue affords the most striking example of this when compared with lung, kidney and muscle tissues. Quantitative comparison of fat and lipase in animal tissues gives no positive evidence in support of the theory of enzyme synthesis.

52. **Metabolism of a Dwarf.**—A dwarf, suffering from infantilism, 17 years old and weighing 21.3 kilograms, was found to have a basal metabolism of 77 calories per square meter of surface in twenty-four hours which may be contrasted with 759 and 784 in two dogs of different weights. The basal metabolism was increased 6.6 per cent. as a result of the ingestion of food and this again was increased by 14.7 per cent. when the boy was reading illustrated periodicals in bed. The protein metabolism yielded the normal proportion of 15 per cent. of the total calories of heat production. Nothing abnormal could be detected in the metabolic process of the individual, as determined from these calorimetric observations.

56. **Determination of Uric Acid in Blood.**—The new method described in this paper is based on the highly delicate color reaction with "uric-acid reagent," a phosphotungstic acid solution by means of which one part of uric acid in one million parts of water gives a positive test. The color obtained from a quarter of a milligram of uric acid is quite adequate for a quantitative determination. Normal human blood, as they have discovered, contains about that much uric acid in from 15 to 25 c.c., so that on the basis of such volumes they are

now able to make quantitative determinations of the uric acid in blood. The method is described in detail.

61. **Lipins of Ovary and Corpus Luteum.**—Data are presented by Rosenbloom showing the percentages of lipins, phospholipins, neutral fat, fatty acids and cholesterol in the ovary and corpus luteum of the cow in the non-pregnant state and in the pregnant state. The results indicate that there is practically no increase in the above-mentioned substances during pregnancy in the cow.

63. **Seasonal Variation in Thyroid Iodin.**—It is shown by the authors that a very marked seasonal variation exists in the percentage of iodin present in the healthy normal-sized thyroid of the sheep, beef and hog. There is in general about three times as much iodin present in the glands in the months of June and November as in the months between December and May. A seasonal variation in the size of the fresh glands was observed in the case of the sheep and beef, but not with the hog. The glands were found to be larger during the months in which the lower iodin content was observed. The maintenance of a standard of 0.2 per cent. iodin in desiccated thyroid prepared for use in medicine, the authors point out, will require the use of glands other than those of the sheep, and, in addition, the mixing of the product obtained at the high and low seasons of the year.

Journal of Cutaneous Diseases, New York

January, XXXI, No. 1, pp. 1-70

64 *Speculations as to Causation of Eczema. J. C. Johnston, New York.
65 *External Origin of Eczema, Particularly Occupational Eczemas, as Based on Study of 4,142 Cases. F. C. Knowles, Philadelphia.

64. **Causation of Eczema.**—By a process of exclusion, Johnston narrows down the causation of eczema to derangement of the nitrogen metabolism neither anaphylactic nor a defective synthesis of urea, but occurring where for the moment biochemistry cannot demonstrate it. He believes that color is lent to the theory by the appearance in its course of allergic phenomena and urinary evidence of incomplete desamidation. He suggests that perhaps the fault lies in a failure of protein-splitting in the intestinal wall or the blood-stream before the tissues select their store of amino-acid nitrogen.

65. **External Origin of Eczema.**—As a result of his investigations, Knowles states that fully one-quarter of all cases of eczema are of definite external origin. Almost one-sixth of all cases of this affection are caused by the occupation of the individual. Microorganisms are apparently not the cause of eczema, but probably play a secondary rôle in the affection. The largest number of cases of the so-called occupation eczemas are seen in the workers in the household and next most frequently in laborers. Practically every occupation and every irritant may produce an eczema. The portions of the skin exposed to the irritant determines the site of the outbreak. The eruption not infrequently extends beyond the irritated areas, at times being noted on distant parts of the cutaneous surface. The usual type of eruption noted is the vesicular or the squamous. The eruptions mentioned in this paper have lasted for weeks, months or years and show a marked tendency to relapse. It is rather hard to explain the susceptibility of some individuals to certain irritants, while others are not affected, excepting on the theory of a pure idiosynerasy, an anaphylactic tendency causing sensitization of the skin. As dermatitis and eczema of external origin have the same clinical and microscopic pictures, Knowles says, they should be classed under the heading of dermatitis.

Journal of Medical Society of New Jersey, Orange

December, IX, No. 7, pp. 329-382

66 Ivory Exostosis of Skull. R. C. Newton, Montclair.
67 Public Conservation of Human Lives. H. W. Klee, Wharton.
68 Treatment of Acne by Bacterins. E. B. Rogers, Collingswood.
69 Pregnancy in Diabetes. R. H. Dieffenbach, Newark.
70 Social Evil and Social Diseases. A. H. Lippincott, Camden.
71 Laboratory Diagnosis of Typhoid. W. F. Gutherson, Paterson.
72 Full Diet in Typhoid. C. H. Scribner, Paterson.
73 Treatment with Restricted Diet. J. M. Stewart, Paterson.
74 Prophylaxis or Typhoid a Preventable Disease. J. O'Donnell, Paterson.
75 Necessity of Scientific Training of Midwives. S. Husserl, Newark.
76 Medical Subjects of Interest in South, Especially at Hot Springs and Mountain Valley Springs, Arkansas. C. S. Heritage, Glassboro.

January, IX, No. 8, pp. 383-436

77 Premature Arterial Senility. W. B. Stewart, Atlantic City, N. J.
78 Alcohol Inebriate: What Can We Do for Him Under Existing Conditions in New Jersey? C. A. Rosenwasser, New York.
79 Postoperative Complications of Abdominal Section. R. S. Fowler, Brooklyn.
80 Teeth and Disease. S. A. Cosgrove, Jersey City.
81 Value of Salvarsan in Syphilis. A. B. Jaffin, Jersey City.
82 Topical Use of Cod-Liver Oil in Feeding Marasmatic Infants. T. N. Gray, East Orange and Newark.
83 Medical Supervision of Schools as State-Wide Proposition. E. A. Ayers, Branchville.
84 Function of Medical Inspection in Checking Retardation. G. J. Holmes, Newark.

Journal of Oklahoma State Medical Association, Muskogee

December, V, No. 7, pp. 291-338

85 Alcoholic Insanity. J. W. Duke, Guthrie.
86 Differential Diagnosis and Treatment of Influenza. H. Breese, Henrietta.
87 Extrauterine Pregnancy. S. N. Mayberry, Enid.
88 Puerperal Infection: Its Prevention and Treatment. G. A. Wall, Oklahoma City.
89 Treatment of Hemorrhoids with Introduction of a New Pile Clamp. W. O. Berry, Muskogee.
90 Extrauterine Pregnancy: Case Report. J. A. Bowling, Alva.
91 Chronic Gonorrhea Treated with Phylacogen. W. E. Stewart, Norman.

Journal of Pharmacology and Experimental Therapeutics, Baltimore

November, IV, No. 2, pp. 97-165

92 *Therapeutic Action of Cresotinic Acids. R. Stockman, Glasgow.
93 *Action of Hydroxy-Codein. J. R. C. Greenlees, Glasgow.
94 *Emetic Action of Digitalis Bodies. R. A. Hatcher and C. Eggleston, New York.
95 Pharmacologic Action of Coriamyrtin. C. R. Marshall.
96 Destruction of Epinephrin and Constrictor Substances of Serum by Oxygenation in Presence of Blood-Vessel Walls. A. L. Tatum, Madison, Wis.
97 *Action of Quinin on Leukocytes. G. B. Roth, Ann Arbor, Mich.

92. **Therapeutic Action of Cresotinic Acids.**—According to Stockman, the sodium salts of o-m- and p-cresotinic acids have a powerful specific action in acute rheumatic conditions. They are for practical purposes inferior to sodium salicylate: (1) the orthocresotinate, even in comparatively moderate doses, slows and depresses the heart; (2) the paracresotinate is not nearly so efficacious; (3) the metacresotinate, while very similar in strength, has no advantages over the salicylate. So far as Stockman tested them, they have no therapeutic actions which are not possessed by sodium salicylate.

93. **Action of Hydroxy-Codein.**—Hydroxy-codein, Greenlees found, has practically the same action as codein, but is somewhat less active. As a therapeutic agent it is inferior in efficacy to codein.

94. **Emetic Action of Digitalis Bodies.**—A number of experiments were performed by Hatcher and Eggleston to determine the emetic action of the digitalis bodies. They found that the digitalis bodies vary widely in the degree of the direct irritant action which they exert on a given mucous membrane; and the mucous membranes of different areas in the same animal, or those of corresponding areas in different animals, vary even more widely in the degree of their susceptibility to the irritant action of any given member of the digitalis group, so that one of these agents may be intensely irritant to the mucous membrane of one area in a certain animal and yet without appreciable influence on the mucous membrane of another area in the same animal. Ouabain is intensely irritant to the mucous membrane of the nose and to the subcutaneous tissues in man, but it is borne in large amounts without signs of gastro-intestinal irritation when administered to rats by the mouth, and this drug may fail to induce emesis in man, as well as in the cat and dog, after the oral administration of considerable amounts unless absorption occurs. All of the digitalis bodies which they have tested induced emesis in cats more promptly and in smaller doses after intravenous administration than when they were given by stomach; and digitalis, digitoxin, true digitalin, strophanthus, amorphous strophantalis, ouabain and adonis (and probably other members of the group) induce emesis promptly after their intravenous injection into dogs from which the gastro-intestinal tract from the

esophagus to the lower part of the rectum has been removed, leading irresistibly to the conclusion that the emetic actions of these drugs is exerted on the vomiting center in such cases. The purgative action is also obviously of central origin. The doses of digitalis bodies required to produce emesis in eviscerated dogs are strictly comparable to those used therapeutically, and the average emetic dose of ouabain or strophanthus for eviscerated dogs is actually far less in proportion to the weight than the doses of those drugs which have been administered to patients by the mouth within the period of one day. In the face of the evidence existing that the emetic action of therapeutic doses of the digitalis bodies is exerted on the vomiting center in man, the authors claim that the burden of proof to the contrary certainly rests on those who would contend that the emetic action is of peripheral origin.

97. **Action of Quinin on Leukocytes.**—Quinin, says Roth, when given to animals in single doses, produces changes in the number of leukocytes which can be divided into three phases. The first, or stage of preliminary leukocytosis, appears shortly after the drug is given, and is no doubt caused by the contraction of the spleen and other tissues acted on by the drug, the increase affecting the lymphocytes for the most part. An hour or two later the second or leukopenic phase appears in which there is a reduction of both lymphocytes and polynuclears, but mainly of the former. This phase is subsequently followed by the third stage, a phase of secondary leukocytosis which is quite marked, the polynuclears being increased, while the lymphocytes remain low or continue to decrease in number. When the drug is administered to the dog continuously for weeks death results and the blood picture is essentially the same, namely, a leukopenia followed by a leukocytosis, the period of leukopenia showing a great decrease in lymphocytes and eosinophils while the period of leukocytosis affects the polynuclears.

Journal of South Carolina Medical Association, Seneca

December, VIII, No. 12, pp. 313-339

98 Plea for More Familiarity with Upper Respiratory Organs. W. P. Porcher, Charleston, S. C.
99 Middle Ear Inflammations. L. O. Mauldin, Greenville.
100 Conservatism in Treating Affections of Ear, Throat and Nose, Including Accessory Sinuses. C. W. Kollock, Charleston.

Maryland Medical Journal, Baltimore

January, LVI, No. 1, pp. 1-26

101 *Necessity of Direct Examination of Lower Bowel for Diagnosis and Treatment of Diarrhea. G. M. Linthicum, Baltimore.
102 Prophylactic Value of Vaccines in Typhoid. J. C. Clark, Sykesville.

101. **Examination in Diarrhea.**—Linthicum emphasizes the fact that diarrhea should be regarded as a symptom of disease. All chronic or subacute diarrheas, he holds, are due to some form of a pathologic lesion. The character of the diarrheal discharge, while helpful in making the diagnosis, cannot be depended on either to indicate the nature or location of the lesion. Pain as a symptom is very misleading as it is frequently absent in the most serious and present often to a marked degree in lesser lesions. The necessity of direct examination is of the utmost importance, as early recognition in malignant growths gives the only hope of permanent relief. The treatment of diarrheas locally in conjunction with systemic is essential. The pain one finds in malignant growths, Linthicum says, is not present until the tissues and adjacent viscera are involved, or until the growth has attained a size sufficient to produce more or less obstruction symptoms which dam back the fecal stream. The diarrhea which results from the presence of malignant growths oftentimes occurs long ahead of the pain symptoms because of the presence of the growth acting as an irritant, increasing the blood-flow to the parts with increased water elimination and, at the same time, stimulating peristalsis so as not to give time for intestinal contents to remain long enough in the colon for absorption of liquid elements by the blood-stream. An inspection can be made by direct examination in nearly 65 per cent. of all intestinal carcinomas at a time when the removal of the growth offers a fair hope of permanent relief, for it is generally felt by operators that there is less tendency to metastases in the lower bowel than in the other parts of the tract. The cure of these ulcers may later prevent secondary degeneration into carcinomata and strictures of non-malignant character are often the resultant of ulcers. Of the symptoms of ulceration of any variety, the one of paramount importance is the diarrhea, which is usually of the early morning variety, appearing first on rising, again after eating and frequently during the forenoon, after which there is comparative comfort. The probability is that the ulceration exists below the cecum and ascending colon. The location of ulcers in the small intestine, cecum or ascending colon, unless complicated with catarrh of the intestine or some form of infection to stimulate exaggerated peristalsis, will rarely evidence diarrhea. The treatment of ulcerative cases can be made directly to the parts effected through the tube, either by probangs or by the atomizer. Small growths of a benign nature may be removed with a snare. Growths suspected of malignancy may have a bit snipped off for examination.

Medical Record, New York

January 11, LXXXIII, No. 2, pp. 57-92

103 Jan Palfyn. J. B. Stein, New York.
104 Case of Pellagra in New York State. F. C. Robbins, Hornell, N. Y.
105 Diseases of Labyrinth. J. S. Greene, New York.
106 Subcutaneous Rupture of Kidney. F. C. Beall, Fort Worth, Tex.
107 *New Method of Treating Toxemia of Pregnancy. G. P. Shears, New York.
108 Case of Sinus Thrombosis; Operation; Recovery. I. Grushlaw, New York.

107. **Treatment of Toxemia of Pregnancy.**—The clinical symptoms, from the subjective dyspnea, so common in pregnancy approximately normal, to the headache, edema and final convulsions of profound toxemia, in Shears' opinion, are strongly suggestive of lack of oxygen. Acting on this theory, he has recently treated his toxemic patients by the free use of oxygen. Four of these cases were of severe type. Improvement and eventual recovery were noted in all. In one, that of a very intelligent patient, the relief afforded was so prompt and complete that it seemed difficult to ascribe it to mere coincidence. The oxygen was given freely, either by inhalation or subcutaneously.

Mississippi Medical Monthly, Vicksburg

January, XVII, No. 8, pp. 171-189

109 Fee-Splitting. E. L. Robertson, Belzoni.
110 Prescription Writing. J. C. Nosh, Clarksdale.
111 Oral Hygiene. E. E. Brister, Gulfport.
112 Gonorrhea. E. R. McLean, Cleveland.
113 Tubal or Extra-Uterine Pregnancy. J. H. Carter, Memphis, Tenn.
114 Different Effects of Purgatives. S. W. Glass, Lyon.

New Mexico Medical Journal, Las Cruces

December, IX, No. 3, pp. 51-81

115 Need for a Vital Statistics Law in New Mexico. C. G. Given, Silver City.
116 When One of the Family Develops Tuberculosis. J. W. Laws, Lincoln.
117 Esophageal Diseases. E. C. Prentiss, El Paso, Tex.
118 Colonic Dilatation (Congenital and Acquired) as Factor in Chronic Intestinal Obstruction (Obstipation). S. G. Gant, New York.
119 Anti-Typhoid Vaccination. F. Finney, La Junta, Colo.

Surgery, Gynecology and Obstetrics, Chicago

January, XVI, No. 1, pp. 1-116

120 Dystopic Kidney. S. C. Plummer, Chicago.
121 Pregnancy in Adenomyoma Uteri. T. O. Doederlein and M. Herzog, Chicago.
122 Hernia Through Pelvic Outlet. E. E. Montgomery, Philadelphia.
123 *Ovarian Tumors Complicating Pregnancy, Delivery and Puerperium. C. W. Barrett, Chicago.
124 *Unilateral Kidney Hemorrhage with Reference to So-Called Essential Hematuria. H. L. Kretschmer, Chicago.
125 *Successful Removal of Over Eleven Feet of Small Intestine. E. R. McGuire, Buffalo, N. Y.
126 Protein Metabolism of Normal Pregnancy and Normal Puerperium. J. R. Murlin, New York.
127 *Classification of Arthritis. J. M. Berry, Albany, N. Y.
128 Etiology, Pathology and Treatment of Ovarian Cysts in Relation to Child-Bearing, with Special Reference to Hemorrhage into Cysts. W. C. Jones, Chicago.
129 Meckel's Diverticulum, with Report of Four Cases. J. R. Wellington, Washington, D. C.
130 Carcinoma of Bladder Controlled by High-Frequency Current. E. L. Keyes, New York.
131 *Clawfoot, and How to Relieve It. A. M. Forbes, Montreal.
132 *Tendon Transplantation Operations. H. P. H. Galloway, Winnipeg.

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133 *Technic of Tubal Sterilization. F. J. Taussig, St. Louis.
134 *Immediate Closure in Perineal Prostatectomy. A. E. Hertzler, Kansas City.
135 Tuberculous Cyst, Probably of Pancreatic Origin. J. M. Mason and E. M. Mason, Birmingham, Ala.
136 Self-Inverting Suture for Appendix Stump. W. Bartlett, St. Louis.
137 Umbilical Cord Clamp. F. L. Adair, Minneapolis.

123. **Ovarian Tumors.**—Reviewing the literature, Barrett found that pregnancy frequently takes place in the presence of ovarian tumors, even though both ovaries be involved. The growth of the ovum produces such changes in position and structure of the ovarian tumor as to make it a menace to the child and mother during pregnancy, that extra hazards occur during labor and are at their height for the mother during the puerperium. Induced abortion with its 100 per cent. of child mortality is unjustifiable, in that it offers no corresponding improvement in the condition of the mother. The early removal of the tumor as soon as possible after its discovery, gives a high percentage of good results in both mother and child and removes the hazard during labor and the puerperium. Tapping or puncture of the tumor shows too large a mortality to make them justifiable procedures, except as preliminary expedients in rare cases. The danger of abortion after double ovariotomies is not sufficiently great as to call for other treatment than that accorded the single tumor. The results during the latter half of pregnancy are such as to warrant removal of the tumor rather than to let the patient continue to term, the increased percentage of abortion being due largely to increased damage previous to or during operation. A patient in labor with a complicating tumor should be placed in the most favorable surroundings possible, and labor allowed to terminate, if unobstructed. This should be facilitated by the use of forceps, if labor is at all difficult and the tumor located well above the pelvis; position and manual efforts may change a pelvic obstructing tumor into an abdominal nonobstructing one. Tumors intertering with labor pains, or located so as to obstruct the outlet or presenting torsion, hemorrhage or suppuration, thus offering immediate abdominal complications, may be operated on with cesarean section accompanying, or, if the outlet is adequate, as shown by previous easy labors, or by liberal measurements, and the soft parts well dilated, labor may be allowed to continue, after the removal of the tumor. On account of the great risk of torsion and degenerations during the puerperium, Barrett advises removal of the ovarian tumor as soon after labor as the patient's condition and surroundings will warrant. If delay is necessary, the tumor should be closely observed.

124. **Unilateral Kidney Hemorrhage.**—Kretschmer points out that unilateral renal hematuria does not always mean unilateral disease, as one may be dealing with a bilateral lesion, although only one side may be bleeding at the time of examination. Absence of albumin and casts in the urine does not exclude the presence of nephritic changes in the kidney. Cystoscopy and ureteral catheterization must be employed in each case to determine definitely the renal origin of the blood. Histologic examination of several pieces of excised tissue or preferably of the entire kidney must be made in every case before a diagnosis of essential hematuria can be made. Cultures of catheterized specimens of urine from each kidney, to determine a possible bacterial cause for the hemorrhage, must be made in all obscure cases.

125. **Successful Removal of Small Intestine.**—McGuire's patient suffered from a mesenteric thrombosis due to an infected thrombus originating from his infected throat. He found extensive gangrene of the ileum, extending within a few inches of the cecum upward for a considerable distance. At the cecal end the black color of the bowel faded into a purple, showing that the circulation of the lower end was only partially occluded. The mesenteric vessels were thrombosed to such an extent that even the veins were full of clots. Excision was made at the base of the mesentery, well beyond the involved area. Both ends were closed and a lateral anastomosis was made, with suture, between ileum or jejunum and cecum. The intestine removed measured slightly over 11 feet; to be exact, 336 cm. The patient left the table in good condition and enjoyed an unusually quiet convalescence, with the exception of a hemorrhage which occurred, per rectum, on the tenth day. On the fourth day he had seven stools, without catharsis, and varying from six to eight on succeeding days. For a time he was placed on a diet rich in starches and sugars, with bismuth and even opium to control diarrhea. About one month later he was given the usual hospital diet and much less disturbance followed. At the present time he is gaining in weight, having gained three pounds in the last week. He has one large formed stool in the morning, and usually two small fluid stools during the rest of the day.

127. **Classification of Arthritis.**—The classification of arthritis based on etiologic and anatomic changes in which Berry believes all forms of arthritis and osteoarthritis can be placed, is as follows: I. Traumatic: 1. Traumatic arthritis. (a) Simple traumatic inflammation, synovitis. (b) Villous arthritis. 2. Traumatic osteo-arthritis: (a) Bony spurs. (b) Proliferative osteo-arthritis in hallux valgus, in joints subject to irritation of foreign bodies, etc. (c) Heberden's nodes. (d) Proliferative osteo-arthritis of the knees. (e) Malum coxae senilis. (f) Spondylitis deformans. II. Infectious: 1. Infectious arthritis caused by organisms. 2. Infectious osteo-arthritis caused by organisms. III. Trophic: 1. Trophic arthritis. Metabolis arthritis (Nathan). 2. Trophic osteo-arthritis. (a) Charcot joint. (b) Gout. (c) Syringomyelia. (d) Rheumatoid arthritis (Jones); atrophic arthritis (Goldthwait); metabolic osteoarthritis (Nathan).

131. **Clawfoot.**—The operation which Forbes advocates is performed through a horseshoe-shaped incision on the dorsal surface of the foot. This incision is, however, preceded by a subcutaneous plantar fasciotomy, with wrenching if necessary. The incision is carried to the extensor tendons and a flap containing all the tissues superficial to these is turned back onto the dorsal surface of the tarsometatarsal articulation. The long extensor tendons are then detached from the phalanges and transplanted into the necks of the metatarsals in either of the methods suggested. The silk attachments are then buried as deeply as possible by means of fine catgut sutures and the skin flap returned and sewed into place by means of horsehair. If, on first examination of the patient, it is felt that the arch of the foot has been so greatly increased that the transplantation of the extensors cannot be expected to undo the damage done, by possibly years of malposition, it may be wise to perform a wedge-shaped osteotomy through the dorsal surface of as many of the metatarsal bones as have caused callosities on the plantar surface of the foot. The removal of such wedges, with their bases situated on the dorsal surface of the metatarsal bones, if accompanied by a careful plantar fasciotomy, and especially if followed by careful after-treatment, cannot fail to lengthen the foot and to remove all sources of pressure if a transplantation of the extensor tendons has already been performed.

132. **Tendon Transplantation Operations.**—Galloway records some of the conclusions arrived at from his personal experience with various applications of the operation of tendon transplantation in the treatment of paralytic deformities, particularly those due to poliomyelitis and spastic paralysis and describes and illustrates the technic followed in performing them. While in unusual cases exceptional procedures may with advantage be devised and carried out, there are not, in Galloway's opinion, more than six or eight tendon transplantations in the lower extremity and two or three in the upper extremity that can be regularly employed with benefit. A few general principles are given: 1. Perfect asepsis is indispensable for success. 2. Attachment of the transplanted tendon to the bone or periosteum is always more satisfactory than attaching it to another tendon or other soft tissues. 3. The tendon must be stretched moderately tight before being secured. 4. It must be fastened with suture material that will maintain its hold for several weeks. 5. A covering of subcutaneous tissue should be brought over it before the skin is sutured. 6. Ample time (about six weeks) should elapse before the transplanted tendon is allowed to functionate, so that its new attachment may become sufficiently strong; further, the muscle should be systematically developed by massage and exercises and carefully

protected by mechanical means from overstrain for several months after the patient begins to use it.

The following operations are described and illustrated: Transplantation of extensor proprius pollicis to neck of first metatarsal. Transplantation of peronei to inner side of os calcis. Transplantation of outer half of tendo achilles to inner aspect of heel. Transplantation of tibialis anterior to outer side of tarsus. Transplantation of biceps or semimembranosus to patella. Transplantation of pronator radii teres to convert it into a supinator. Conversion of flexor carpi radialis and flexor carpi ulnaris into extensors of the wrist. In connection with all ordinary tendon transplantation, Galloway says, elongation with silk is quite unnecessary if care be taken to secure all the length possible by detaching the tendon directly from its insertion. The unnecessary introduction of a foreign body like silk is to be deprecated; but in replacing a partly destroyed tendon, as for example a destroyed ligamentum patellae, Lange's method of using silk so as to form a kind of framework about which nature can construct a new tendon will be found of immense service. It has also a limited application in the creation of artificial ligaments about flail joints.

133. **Technic of Tubal Sterilisation.**—The technic of Taussig's operation is as follows: The abdomen is opened by a small median incision in the usual manner and the uterine end of one fallopian tube seized with forceps. The uterus is thus pulled into view so that a suture can be passed through the uterine horn at the tubal insertion. Before tying this suture, the interstitial portion of the tube is cut away by a V-shaped incision. Next, the tube is freed from its peritoneal attachment for a distance of about one inch and, a ligature having been thrown around the distal end, this free portion of the tube is resected. With an artery forceps or Mayo dissecting scissors the layers of the broad ligament are separated from each other at the point where it has been opened up. Catching the end of the tube with an extra suture to prevent it from slipping, the threaded needle is now passed through the open space in the broad ligament, and emerges just anterior to the round ligament near the attachment of the vesical peritoneum to the uterus. An extra suture is passed through the peritoneum at this point so as to completely bury this end of the fallopian tube in the broad ligament. The third step in the operation consists of sewing the round ligament by one or more sutures to the upper posterior surface of the uterus, thus closing over the point of the tubal insertion and the small open space in the peritoneum of the broad ligament. The abdomen is closed in the usual manner.

134. **Immediate Closure in Perineal Prostatectomy.**—When the enucleation of the prostate is completed, Hertzler removes the packs from the cavities previously occupied by the lateral lobes and obliterates the cavities with a No. 2 catgut mounted on a medium size full-curved round needle. The sides of the cavities are brought together, thus obliterating the space and checking any tendency to oozing that may still be present. Either after or before the obliteration of the cavities a drainage tube is passed through the incision into the urethra to just within the bladder. The incision into the urethra is now closed snugly about the tube so that the urine cannot escape. The tube should be fastened to the skin by means of a suture in order to prevent it from slipping too far within or without the bladder. After the tube has been securely sutured into the urethral opening the incision into the superficial soft parts is closed by deep silkworm gut sutures. No drain other than the tubular drain into the bladder is used. A dry pad is used over the wound, perforated to permit the passage of the drainage tube. After the patient is returned to his bed, a longer tube is attached by means of a short glass tube, and the urine conducted to a receptacle at the side of the bed. Hertzler has allowed the tube to remain in from four to six days. The advantage of this method of operating has been the definite abandonment of all gauze packs and drains in the perineal wound. Less blood is lost because the large vessels are caught up and definitely ligated at once. The bed has been kept clean and the patient dry for four or five days during his severest illness, when the drain is through the perineum, or permanently when the catheter is used. There is far less abscess formation about the stitches and in the superficial parts and fat necrosis is less likely. The final closure of the perineal incision is hastened and complete closure is much more certain.

Texas State Journal of Medicine, Fort Worth

January, VIII, No. 9, pp. 229-254

138 Public Sanitation. O. Dowling, Shreveport, La.
139 Auto-Intoxication in Relation to Eye: Report of Cases. H. L. Hilgartner, Austin.
140 Optometry and General Practitioner. L. G. C. Buchanan, San Angelo.
141 Management of Puerperium. A. M. Jones, Anson.
142 Responsibilities of Obstetrician and Ultimate Results of Faulty Technic. E. S. Gordon, Dallas.
143 Case of Uterine Myofibromata, Accompanied by Pregnancy. A. L. Hathcock, Palestine.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Single case reports and trials of new drugs are usually omitted.

Australasian Medical Gazette, Sydney

November 23, XXXII, No. 21, pp. 525-548

1 Surgical Impressions of Trip Round World. C. E. Todd.
2 Complete Detachment and Dislocation of Left Os Coxae "Innominatum" in Boy. T. Fiaschi.
3 Use of Mucus Extractor in Asphyxia Neonatorum. H. B. Oxenham.

November 30, XXXII, No. 22, pp. 549-574

4 Case of Keratodermia Blenorrhagica. H. Swift.
5 Psychotherapeutics. R. Arthur.
6 Medical and Surgical Practice During Recent Trip Abroad. L. Cooper.

December 7, XXXII, No. 23, pp. 575-598

7 Points in Connection with Examination of Trainees: University Training School. A. G. Butler.
8 Idem: Compulsory Training Scheme. A. Marks.
9 Fulminant Toxemia of Pregnancy. S. H. Harris.

British Medical Journal, London

December 28, II, No. 2713, pp. 1741-1776

10 *Pre-Operative Diagnosis of Appendicitis; Demonstration of New Method by Dorsal Examination. W. Ewart.
11 Theories with Regard to Secondary Growths in Carcinoma of Breast. M. Thorne.
12 Foreign Body in Abdominal Cavity. L. B. Green.

10. **Preoperative Diagnosis of Appendicitis.**—The dorsal field of percussion, the region which, Ewart states, supplies physical signs in many cases where they are wanting, includes the resonant sacral and iliac surfaces, and between them two "posterior iliac patches" of subresonant dulness. The latter are localized by feeling for the crest of the posterior iliac tuberosity. The right "patch" is rather duller than the left, presumably owing to the airlessness and thickness of the appendix. But the main dulness of the two patches is due to the common iliac blood-vessels. The normal standard which has been obtained in a series of tracings from healthy subjects during the last two and a half years, consists of those features, and of an absence of any adventitious dulnesses, whether sacral or iliac. These were almost invariably present in the large number of declared or of suspected cases which Ewart was able to examine. An adventitious dulness may encroach more or less on the right patch; but its site of special frequency is the right iliac surface. Less often it occurs at the right sacral, and sometimes, though rarely, it involves the left sacral surface also. The normal postoperative standard is characterized by a general resonance, due to a remarkable disappearance of the "normal patch" dulness, as well as of any adventitious dulnesses. A "clean" result implies that there are no remnants of dulness.

Ewart says his method presents no difficulty, entails little disturbance and no pain for the patient, and claims only five minutes all told, including taking a permanent record on tracing paper. When the examination is made in the consulting-room, in normal or in ambulant suspected cases, the patient can be seated on a high stool, or sideways in a chair on a firm cushion. If standing—and this is the most convenient—he should be made to lean forward, resting with both hands on a table or some other support, in as level an attitude as possible. The iliac crests are traced with a dermographic pencil, beginning from below where the crest of the tuberosity is easily felt, and guides deeper palpation for the upper iliac crest. Percussion is then made for the outline of the normal

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patch on both sides, starting preferably with the left patch, and noticing that it is rather less dull than the right one. In more acute cases the preoperative examination (and likewise the postoperative when it is undertaken in early convalescence) may have to be conducted in bed—for worst cases in the left lateral decubitus, for others in the sitting attitude. For the latter suitable arrangements should be made by removing the obstruction of the bolster, and if possible by raising the patient from the trough of the bed on a folded sheet or a firm pillow. If well enough he can be moved to the corner of the foot of the bed, where he can sit comfortably with legs overhanging; the back is then much more accessible for careful percussion—an important matter when the signs are not so obvious as those of a large retrocecal abscess which might easily be detected in any position. For a successful percussion the only requirement is the use of a Sansom's plexímeter. The technic is the same in all cases, namely, to keep the flange of the plexímeter from lying across the boundaries which have to be determined, and to resort to an alternate use of the short flange whenever the unknown outlines of any adventitious dulness have to be accurately worked out.

Clinical Journal, London

December 11, XLI, No. 16, pp. 145-160

13 Modern Treatment of Phthisis. H. W. Gardner.

December 18, XLI, No. 11, pp. 161-176

14 Selection of Cases of Pulmonary Tuberculosis for Sanatorium Treatment. J. E. Squire.
15 Neurology. C. M. H. Howell.
16 Craniocerebral Surgery. L. B. Rawling.

December 25, XLI, No. 12, pp. 177-192

17 Neurology. C. M. H. Howell.
18 Physiology of Bathing. R. F. Fox.
19 Points in Connection with Urinary Tuberculosis. S. G. MacDonald.

Indian Medical Gazette, Calcutta

December, XLVII, No. 12, pp. 461-504

20 Surgery at David Sassoon Hospital, Poona. A. F. Hamilton.
21 *Present Position of Permanganate Treatment of Snake-Bite. L. Rogers.
22 Radio-Activity of Some Wells and Thermal Springs in Bombay Presidency and in Baroda State. A. Steichen.
23 *Influence of Monsoon on Incidence of Eclampsia. G. C. Fraser.
24 Diagnosis of Sand-Fly Fever and Its Differentiation from Malaria. E. C. Taylor and M. H. Khan.
25 Cases of Spirillar Fever in Darjeeling District. A. M. Jukes.

21. Permanganate Treatment of Snake-Bite.—Rogers has investigated this method of treatment very thoroughly and as a result believes that it has saved a number of valuable human lives, and further that it is the only practical method of treating snake-bites under ordinary conditions of practice in India; although it should always be supplemented by the intravenous injection of antivenin in efficient doses in the rare cases in which this is possible, always bearing in mind that to neutralize the full amount of venom that may be injected by a cobra about three-quarters of a pint of serum is required (probably containing a lethal dose of horse serum), so that it is not likely to be of much service unless most of the venom has first been destroyed locally by the application of permanganate.

23. Eclampsia and Monsoon.—The overwhelming incidence of eclampsia during the wet seasons of the year as compared with admissions from that disease in the dry months, Fraser believes, has not as yet received any attention whatever in literature. During a wet spell in 1911, the large number of eclamptic patients admitted to the Government Maternity Hospital in Madras compelled itself on his attention and when commenting on the fact he was informed that it was usual for admissions to increase during a wet spell. When the skies were clear, the air dry and crisp and the temperature high, few cases were admitted. The true cause he thinks is to be sought for in the decreased output of the sweat glands. In a dry, hot temperature, the sweat evaporates as fast as it is secreted and so the sweat ducts are kept continually cleared, capillary attraction playing a great part in bringing the sweat to the surface via the minute ducts. On the other hand, if the sweat accumulates on the skin, the capillary action will cease and the ducts will be hopelessly water-logged. As a natural consequence a great accumulation of waste-bodies toxic to a degree, which would otherwise have been got rid of, collect in the deep layers of the skin and are sooner or later carried off into the blood stream, there to be carried to and act as powerful excitants of the higher centers or to set up acute inflammations of the kidneys and other organs. A recognition of the causes gives a clue to the treatment; increase the output of the sweat glands, but what is as important, to get rid of that already secreted, so as to clear the ducts and allow secretion to go on at a greater pace. This can be done by subjecting the patient to a dry, hot atmosphere. The method Fraser proposes is to place the patients in a ward of special construction, the air in which has been filtered through apertures or tubes containing hygroscopic bodies such as calcium chlorid, asbestos or lime so as to remove all moisture. An electric warmer would be used to raise the temperature to about 90 F. The ventilation would have to be forced by electric fans and the general scheme should present no insuperable difficulties. Acute cases suffering from convulsions or those requiring delivery or other operative measures, would be treated first of all in a labor ward or theater, and then subsequently be removed to the dry-air ward.

Lancet, London

December 28, II, No. 4661, pp. 1771-1856

26 Obstetrics and Gynecology, 1887-1912. E. Malins.
27 *Complete Removal of Pleural Effusions by Regulation of Intrathoracic Pressure During Aspiration (Oxygen Replacement). H. M. Davies.
28 Empyema in Infant Aged Five Weeks, with Operation and Recovery. F. G. Chandler.

27. Complete Removal of Pleural Effusions.—As the chest is a closed chamber Davies suggests that it is obvious that if fluid is withdrawn, either a rapidly increasing negative pressure must be produced or the fluid must be replaced by some other substance. The recognition of these facts suggests that if it were possible, during the process of withdrawing fluid, to modify the intrathoracic changes produced by the increasing negative pressure, by introducing from without some non-irritating sterile substitute, the whole of the fluid could be withdrawn. The most obvious substitute is air, but it is found of the three principal gases of the atmosphere, oxygen, when in contact with the pleura is absorbed rapidly, while the nitrogen and carbon dioxid are absorbed at a much slower rate. Since, however, it is desirable that the pneumothorax produced should be absorbed as quickly as possible, Davies has used oxygen instead of air for the replacement of the fluid in all his cases.

He has found Kornmann's apparatus extremely convenient and easy of control, using a needle and cannula which, as regards the shaft and its connections, resemble in many ways an aspirating needle and cannula, but the lumen of the cannula is 1 mm. in diameter and the point of the needle lies flush with the oblique and sharpened end of the cannula in the same manner as in a spinal needle and cannula. The patient lies in a semi-recumbent position well propped up in bed, turned slightly on to the south side with the arm on the affected side well forward. The skin between the anterior and posterior axillary lines is painted with iodin, and the fifth and eighth intercostal spaces are marked in the mid-axillary line. With local anesthesia the needle connected with the aspirating bottle and vacuum pump is passed through the anesthetized area into the fluid; while the needle connected with the oxygen apparatus is passed through the upper anesthetized area. When the needles have been introduced it is absolutely essential that the manometer connected with the upper needle should show respiratory movements and until and unless these are obtained no oxygen must be allowed to escape through the needle. Fluid is now aspirated from the chest and the aspiration continued until the patient either coughs or experiences the slightest pain. The aspiration is then immediately stopped, and 50 c.c. or 100 c.c. of oxygen are allowed to run in slowly.

Davies says that the pain or cough will at once disappear, and the aspiration is continued until the recurrence of some symptom demands the introduction of more oxygen. This process is continued until no more fluid can be withdrawn. Toward the end of the process oxygen will be found to escape with the fluid and the proportion of oxygen introduced to fluid withdrawn must be increased. Davies finds that if this

procedure is carried out efficiently the patient experiences practically no distress, either during or at the end, and a skiagram taken at the conclusion will show the almost complete disappearance of the fluid and a small pneumothorax, while the lung, no longer obscured by the fluid, permits of complete radioscopic and radiographic examination.

Medical Press and Circular, London

December 11, XCIV, No. 3810, pp. 619-646

29 Some Therapeutic Points. H. French.
30 Neurology of Visual System. H. Campbell.
31 Reflex Stimulation of Vagus Center in Treatment of Disease. A. T. Brand.
32 Cane Versus Beet Sugar. A. S. Dutton.

December 18, XCIV, No. 3811, pp. 647-672

33 Bulbar and Pseudobulbar Paralysis. F. C. Purser.
34 Neurology of Visual System. H. Campbell.
35 Present Position and Prospects of Medical Practice. H. C. Cameron.
36 Triumph of Quackery. H. Sewill.

December 25, XCIV, No. 3812, pp. 673-698

37 Selection of Cases of Pulmonary Tuberculosis for Institutional, Domiciliary and Dispensary Treatment Under National Insurance Act. H. E. Symes-Thompson.
38 Neurology of Visual System. H. Campbell.
39 Intestinal Stasis. R. M. Leslie.
40 Cases Illustrating Difficulty and Importance of Early Diagnosis in Acute Intestinal Obstruction. E. W. H. Groves.

Sei-I-Kwai Medical Journal, Tokyo

December, XXXI, No. 12, pp. 249-284

41 Investigation of Portio Vaginalis of Uterus in Relation to Conception. J. Kimura.

Archives des Maladies du Cœur, etc., Paris

December, V, No. 12, pp. 753-840

42 Paroxysmal Tachycardia. E. Savini. Commenced in No. 11.
43 A Case of Complex Arhythmia. (Pulsation sus-claviculaire d'origine cardio-pneumatique et arythmie complexe.) G. Clarac and C. Pezzi.
44 The Reduplication of the Sound in Mitral Stenosis in Connection with the Third Sound. (Bruit de dédoublement mitral et troisième bruit du cœur.) L. Gallavardin.
45 Hemophilia Developing in Course of Gastric Cancer. (Etat hémophilique survenu au cours d'un cancer de l'estomac à forme anémique.) H. Lemaire.

Lyon Chirurgical, Lyons

December, VIII, No. 6, pp. 553-650

46 Case of Richter's Hernia. (Pincement latéral de l'intestin.) E. A. Delfino.
47 *Nerve Grafting. (Résultats cliniques des greffes nerveuses.) E. Duroux.
48 *Black Urine with Melanomas. (Mélanurie dans les tumeurs mélaniques.) P. Bonnet.
49 Facial Paralysis from Mastoid Lesion. (Paralysie faciale d'origine otique et son traitement par l'anastomose hypoglosso-faciale.) G. Cotte and G. Sigaux.

47. **Nerve Grafting.**—Duroux reviews the history of nerve grafting, stating that the first successful work of the kind was done in France in 1870 (Philipeaux and Vulpian), but Albert in 1876 reported the first successful nerve graft in man. Duroux then gives an illustrated account of a case in which he successfully bridged a gap of 15 cm. in the median and ulnar nerves with a graft from the sciatic nerves of a dog. This was the third operation that had been done on the nerves after they had been severed by a deep transverse cut in an affray a year before the grafting operation. He tabulates the details of twenty-two cases of nerve grafting from the literature. In his own case sensibility returned in the hand and fingers within a month. The motor functioning, however, although satisfactory, is far from perfect, probably on account of the months of atrophy of the muscles before the operation, the inflammation of some of the joints, and the results of the ligation of the brachial artery which had compromised the nourishment of the tissues to a certain extent. As a rule, grafts from the same species are preferable. The slowness with which the sensibility and motor functioning return is striking; in very few of the cases on record was the interval so brief as in his own case. From the sensory point of view the outcome is almost perfect. He ascribes his success to his care to preserve and implant with the graft all its surrounding cellular and vascular tissue. The nerve graft was thus nourished by its own tissues until it had taken root in its new home by adhesions and newly formed vessels. The continuity of the nerve was realized by the side-to-side juxtaposition of the different segments of the nerve, with consequent formation of actual neuromas at the central and peripheral points of junction.

48. **Black Urine with Melanomas.**—Bonnet states that melanuria is a symptom common to various affections, but he found it only in 20 per cent. of fifteen cases of melanomas—on the heel (3), toe (3), back (2), leg (3), breast (2), and one each on the cheek or anus. He noted pronounced melanuria also in five cases of secondary cancer of the liver, in one of old gall-bladder disease and one of liver disease.

In the cases of melanoma with melanuria, involvement of the liver was very pronounced, while the liver seemed to be normal in all the cases of melanoma without black urine. In one case in which there was no melanuria, although the melanosis was general and extreme, necropsy showed that the liver was the only internal organ which had escaped the melanosis. Melanuria, therefore, may be regarded as a sign of involvement of the liver in case of a tumor with black pigment, and it may thus serve to determine the operability of the tumor, if Bonnet's conclusions are confirmed by others.

Presse Médicale, Paris

December 4, XX, No. 100, pp. 1013-1020

50 *Effect of Compression of the Spinal Cord on Albumin Reaction in Spinal Fluid. (Dissociation albumino-cytologique au cours des compressions rachidiennes.) J. A. Sicard and C. Foix.
51 Facial Neuralgia. (Considérations sur les rapports des états névralgiques, en particulier des migraines et des névralgies faciales.) F. Lévy.

December 7, No. 101, pp. 1021-1032

52 Hemiplegia from Scarlet Fever in Puerperium. (Hémiplégie après scarlatine chez une femme en couche.) I. Dusciau.

December 11, No. 102, pp. 1033-1040

53 *The Adrenal Factor in the Uncontrollable Vomiting of Pregnancy. (Du rôle de l'insuffisance surrénale dans les vomissements gravidiques incoercibles.) E. Sergent and C. Lian.

December 14, No. 103, pp. 1041-1052

54 Pleximeter Auscultation. C. Fernet.
55 *The Urea Index in the Blood. (La constante uréo-sécrétoire.) L. Ambard. (Sur une modification d'uréomètre en vue du dosage de l'urée sanguine.) L. Ambard and Hallion.

December 18, No. 104, pp. 1053-1060

56 *Special Indications for Squill as a Diuretic. (La scille. Médicament diurétique azoturique.) A. Pic and S. Bonnamour.
57 Sedative Action of Sodium Iodid in Small Doses. J. L. Champion.

50. **Dissociation of Albumin and Cells in Spinal Fluid as Sign of Compression.**—Sicard and Foix found that the cerebrospinal fluid in cases of active Pott's disease always contained a large proportion of albumin, while it was almost entirely free from cellular elements. Over fifty patients with tuberculous spinal disease were examined with concordant results in this line in every instance. In sixty cases of sciatica of the low type, that is, below the great sciatic notch, the albumin and cell reactions were normal. In the cases of sciatica for which some trouble in the intervertebral foramina was responsible, there was more albumin than normal; scoliosis is the rule in this class of cases of sciatica. In twelve cases of neoplasm compressing the spinal meninges there was a large proportion of albumin with very few, if any, cells and as the tumor progressed the albumin increased in amount. In this class of cases the dissociation between the albumin and the cells has great diagnostic importance, as, for instance, when sciatica develops in a person who has had a spinal tumor removed a few months or years before, it is a question whether the sciatica is simple or a symptom of metastasis in the spine. Their research shows that an abnormal proportion of albumin in the spinal fluid must not be regarded as necessarily a sign of derangement of the spinal roots or meninges in every instance. When it is accompanied by abnormal proportions of cells it is a sign of a reaction on the part of the pia mater or roots. When the abnormal amount of albumin is observed without cellular elements in the fluid, this is a sign of reaction to compression outside of the dura, in the epidural space or intervertebral foramen. Their comparative research on the different tests for albumin has demonstrated that the nitric acid technic is the most reliable. About 6 or 7 drops of nitroso-nitric acid are allowed to flow down the wall of a narrow test-tube containing 2 c.c. of the cerebrospinal fluid. A precipitate is thrown down in case of positive findings and the promptness with which this occurs and the amount after two or three minutes are the criteria. Four degrees of the reaction may be

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observed, slight opalescence (normal); slight turbidity; turbidity turning to a dirty gray, or a yellowish tint of the fluid with massive coagulation.

53. **Epinephrin in Uncontrollable Vomiting of Pregnancy.**—Sergent and Lian report six cases in which the uncontrollable vomiting of pregnancy was accompanied by signs of insufficiency on the part of the adrenals, and the patients were promptly cured by administration of epinephrin, as is described in detail. When the adrenals are insufficient from any cause, the ordinary auto-intoxication of pregnancy may entail the most serious results, all of which may be averted, they say, by prompt administration of adrenal extract. The pregnancy should never be interrupted for uncontrollable vomiting, they insist, until epinephrin has been given a thorough trial. The signs of adrenal insufficiency are asthenia ranging from lassitude to almost complete inability to move; digestive disturbances, vomiting, diarrhea or constipation; pain in the lumbar region and abdomen, and finally circulatory disturbances, low blood-pressure, the adrenal white line, and a tendency to syncope or even syncope and sudden death.

55. **The Urea Index in the Blood.**—Ambard and Hallion describe some modifications and improvements in the technic for the urea index described in THE JOURNAL, 1912, lix, 229 and 818.

56. **Squill as a Diuretic.**—Pic and Bonnamour discuss the history of the therapeutic use of squill and the mechanism of its action, which is still mostly conjecture. Their research has shown that diuretics can generally be classed under three headings, those which promote the output of water, of chlorids or of nitrogen; that is, as they express it, the hydruries, the chloruries and the azoturics. Squill is the model specimen of the third class; it displays an elective action on the elimination of urea by the kidney cells. The knowledge of this simplifies very much the therapeutic indications for it and explains the contradictory results obtained with it by the older investigators and empiricists. Luquet's Lyons thesis, 1912, contains the clinical record of years of its use as an "azoturic" diuretic and a few peculiarly instructive cases are reported here, with the clinical charts. They show that with retention of urea, 0.45 gm. of pulverized squill, fractioned, promptly increases the output of urine and the amount of urea eliminated rapidly runs up. In the first case reported a woman with chronic kidney disease had only 4.05 gm. of urea per liter and 600 gm. of urine in the twenty-four hours. Under the influence of rest and restriction to milk, the amount of urine transiently increased but then dropped to 400 gm. and declined to 300 after 1.5 gm. of theobromin had been taken. The patient complained then of severe headache and ringing in the ears which she attributed to the drug. Then 4 gm. of adonis vernalis was given and the output of urine increased but the total output of urea declined still further, dropping to a fraction over 5 gm. in the twenty-four hours. Then 0.45 gm. of squill was given, fractioned, and at once the diuresis increased to 1,500 gm. and the proportion of urea excreted ran up at the same time, finally totaling over 13 gm. in the twenty-four hours. To test the actual influence of the squill on this elimination of urea, all medication was suspended for four days, and both the amount of urine and the percentage of urea dropped materially, but were promptly restored to the preceding figures by resumption of the squill while the edema subsided and the general health showed marked improvement. In another case a man with chronic nephritis and anasarca had taken theobromin for years and it had always kept up the diuresis but had no effect on the dropsy which totally incapacitated the patient. Finally the urine was examined for urea and extreme retention of nitrogenous waste was discovered, the urea in the twenty-four hours totaling only 4.63 gm. Squill was then given and the output of urine increased to 2.5 liters while the urea output ran up to 21.6 gm. and the dropsy rapidly vanished and the general health improved. The squill was then suspended and digitalis given as there was some arhythmia, and the amount of urine and of urea declined. Then theobromin and squill were given together and the diuresis increased and as much as 27.34 gm. of urea was excreted, which is above the normal average (26 gm.). With the dropsy the dyspnea also disappeared, and the patient was able to be up and out of doors for the first time in years. Persons with heart disease sometimes have retention of urea, and squill has proved its usefulness also in this class of cases. Even in the healthy, squill increases the output of urea. Analysis of the urine to determine whether there is retention of urea, salt or water is indispensable as a guide for proper therapeutics nowadays.

Revue de Chirurgie, Paris

December, XXXII, No. 12, pp. 869-982

58 *Immediate Cholecystectomy in Acute Gall-Stone Cholecystitis. R. Leriche and G. Cotte.

59 *Bile Peritonitis Without Perforation of Biliary Apparatus. (Péritonite bilieuse avec epanchement biliaire dans le péritoine sans perforation de l'appareil biliaire.) S. Johansson.

60 *The Veins in Collateral Circulation. (Du rôle des veines dans la circulation collatérale artérielle.) E. Ney.

58. **Cholecystectomy in Acute Gall-Stone Cholecystitis.**—Leriche and Cotte are in favor of treating acute gall-bladder infection like acute appendicitis by an immediate operation, and support their advocacy of the measure by seven typical cases of the kind. These seven acute cases were encountered in a total of thirty operations for gall-stones in the last six years.

59. **Bile Peritonitis Without Perforation of Biliary Apparatus.**—Johansson reports a case of this kind and compares it with four others from the literature. No perforation or even suggestion of one could be detected at the necropsy in three cases and in another case at the operation the bile could be seen oozing through the wall of the gall-bladder.

60. **Importance of the Veins for Development of Collateral Arterial Circulation.**—Ney states that ligation of the vein corresponding to the arteries of the collateral circulation has a remarkable effect in raising the pressure in these arteries and thus promoting further development of the collateral circulation. He has reproduced analogous conditions in an apparatus, and has found his assumptions confirmed in experiments on dogs. Compression of the vein trunk starts up the collateral arterial circulation.

Archiv für Verdauungs-Krankheiten, Berlin

December, XVIII, No. 6, pp. 701-876

61 *Hypersecretion After Test Meal in Diagnosis of Gastric Ulcer. (Beitrag zur Pathologie und Therapie des Magengeschwürs. Die Hypersekretion nach der Probemahlzeit.) S. Kemp.

62 Indications for Operative Treatment of Gastro-Intestinal Tract. (Indikationen für Operationen bei Erkrankungen des Verdauungstraktes.) M. Einhorn (New York).

63 Comparison of Findings with Roentgenoscopy and Illumination of the Stomach from Within. (Vergleichende Untersuchungen über die Röntgenphotographie des Magens und die Gastrodiaphanie.) K. Hofius.

64 *The Stool with Hyperacidity and Anacidity. (Ueber das Verhältnis zwischen Stuhlbild und Darmmotilität und die wechselnden Stuhlbilder der Hyperacidität und der Achylie.) S. Jonas.

65 Hemorrhagic Erosions in the Stomach in Connection with Melena Neonatorum. (Ueber hämorrhagische Erosionen und Magengeschwüre und ihre Beziehungen zur Melaena neonatorum im Anschluss an 4 Fälle bei Säuglingen.) I. Zadek.

66 Duodenal Mucus in Vomit. (Erbrochener Duodenalschleim im Migräneanfall.) F. Schilling.

61. **Hypersecretion After Test Meal with Gastric Ulcer.**—Already summarized in THE JOURNAL, Oct. 26, 1912, p. 1586.

64. **Relations Between Motor Functioning of the Intestines and the Stools.**—Jonas presents evidence to prove that the stomach is responsible for the motor functioning of the intestines to a great extent, as hypermotility of the stomach is accompanied by an abnormally rapid passage of the contents through the intestines, and hypomotility by the reverse. The stools may pass at the normal tempo through the upper intestines and yet present the picture of severe constipation by delayed passage through the lower segment of the large intestine. As this may be secondary to disease of the stomach, as well as of the small or large intestine, the presence of diarrhea does not justify any conclusions as to the hypermotility of the whole intestinal tract. Achylia generally entails diarrhea as the achylic hypermotility extends throughout the intestinal tract unless the lower segment of the large intestine escapes. In this case normal or hard stools may be observed and even constipation, so that constipation does not justify the assumption of lack of achylia. On the other hand, if in spite of known achylia the stool passes slowly through the upper large intes-

tine, not reaching the splenic flexure in at least six hours, some obstruction in the stomach or intestine should be suspected. With hyperacidity constipation is the rule, as this checks the evacuation of the stomach on account of the exaggeration of the pylorus reflex. In exceptional cases, however, the hyperacidity may be the result of a primary hypermotility and thus diarrhea may be observed. These conclusions are based on a number of cases described in detail. They explain the variations in the stools liable with hyperacidity. (A previous communication by Jonas on this subject was summarized in THE JOURNAL, July 15, 1911, p. 257.)

Berliner klinische Wochenschrift

December 16, XLIX, No. 51, pp. 2393-2440

67 *Pathogenesis of Appendicitis. G. Pascale.
68 *Congenital Dropsy. (Zur Kenntnis der angeborenen allgemeinen Wassersucht.) W. Fischer.
69 Stenosis of the Esophagus. A. Rethi.
70 Vaccine Pustule on Tongue. (Autovaccination der Zunge.) W. Lublinski.
71 Present Status of Hematology. A. Pappenheim.
72 *New Leg Sign. (Neues Unterschenkelphänomen.) A. Piotrowski.
73 *Nine Cases of Neurorecurrence in Syphilis After Salvarsan and One Fatality. (Ueber Störungen des Nervensystems nach Salvarsanbehandlung unter bes. Berücksichtigung des Verhaltens der Cerebrospinalflüssigkeit.) H. Assmann.

67. **Pathogenesis of Appendicitis.**—Pascale calls attention to the peculiar conditions in the appendix in regard to the circulation. The arrangement of the vessels nourishing the appendix differs from that of all other segments of the intestines, and any slight interference with the circulation blocks it at once so that even a minimal disturbance is liable to have dire consequences here. The appendix also differs in its structure from other segments of the intestine as it contains such numbers of lymph follicles. The chemistry of the appendix is also peculiar to it, owing to the arrest here of fecal matters and the conditions favoring symbiosis of microorganisms. These special features of the appendix explain why one attack of appendicitis leaves a predisposition to recurring attacks, and each one leaves the appendix in worse shape than before.

68. **Congenital Dropsy.**—Fischer reports the case of a woman of 32 who had borne five children, four now in good health, and then had been delivered nine times in succession of a stillborn and macerated fetus. There was no history of syphilis and the Wassermann reaction was negative. Fischer delivered the last one and noted diffuse dropsy in the child as also in a second case reported, the mother a v-para of 28 with four living children and no signs of syphilis. In these as in two other cases previously reported by Fischer, the children with the dropsy were delivered prematurely, at the seventh or eighth month, there was much ascites and the placenta was unusually large and edematous. There were considerable deposits of pigment in the spleen, liver and kidneys and the blood-count showed excessive number of nucleated cells, mostly red corpuscles. The whole picture in all the cases alike suggested injury from the action of some toxin.

72. **The Anticus Leg Sign.**—Piotrowski has found a phenomenon which he thinks may prove useful in the diagnosis of organic disease of the central nervous system. It is elicited like the knee-jerk, the muscle struck being the tibialis anterior at its point of origin, between the tuberosity of the tibia and the head of the fibula or by percussion of the belly of the muscle. This induces a reflex dorsal flexion and supination of the foot, corresponding to the motor effect of the physiologic function of the muscle. It assumes pathognomonic importance only when the reflex response is excessive or when it can be elicited only or predominantly on one side. This abnormal reflex may be the only sign of organic disease, or it may instructively corroborate other findings, especially a dubious Babinski sign. Piotrowski has tested this anticus reflex, as he calls it, in 115 cases and found it symmetrical, that is, alike on both sides, in numbers of nervous or debilitated patients. In patients with organic lesions of the central nervous system, especially those of a spastic character, the reflex occurred in an abnormal form, varying on the two sides, asymmetrical, the response excessively lively even to a slight touch. In a few cases the reflex elicited was exactly the reverse of what was expected, an antagonistic reaction being observed. This occurred apparently only in the cases in which some lesion in the lumbar portion of the spinal cord interrupted the stimulus so that the stimulus applied to the periphery was prevented from completing its reflex arc.

73. **Nervous Relapses After Salvarsan.**—Assmann reports nine cases of neurorecurrence after salvarsan. Examination of the cerebrospinal fluid confirmed him in the belief that the neurorecurrences are merely a manifestation of the disease and that the salvarsan has nothing to do with them. This assumption is justified, he says, by the prompt subsidence of the symptoms under continued cautious use of salvarsan. In one case an intravenous injection of 0.2 gm. salvarsan transformed in two days the alarming clinical picture; convulsions, unconsciousness, vomiting, pulse 96 to 118, temperature normal, negative Kernig sign, no rigidity of back of neck. This syndrome developed suddenly two months after two injections of salvarsan. The first day there were eight attacks of convulsions and on the diagnosis of true status epilepticus 4 gm. of chloral was given by the rectum, which put an end to the convulsions. By the second day the patient became more conscious and the mind was quite clear by the third day, but there was severe headache. The cerebrospinal fluid showed 260, 456, 307 and 100 cells, with the Nonne reaction strongly positive; the Nissl 9.5 and 6. The apparatus of hearing was the seat of the neurorecurrence in the other cases except in one in which intense headache was the only symptom. All these patients recovered under continued use of the salvarsan or under mercury. In another case severe convulsions developed the third day after a second injection of salvarsan, and the convulsions returned at intervals with unconsciousness, deviation of the eyeballs, clonic and tonic muscular spasms and abolition of the pupil reflex. In the intervals the mind was clear and the reflexes normal, but the man of 30 complained of intense headache. He died in coma the second day after the onset of the convulsions. The necropsy findings indicated a severe acute action on the central nervous system and kidneys of some toxic agent. The salvarsan seemed to have contributed directly or indirectly to bring about the fatality in this case, while in the neurorecurrences, Assmann says, the trouble seemed to be of a purely syphilitic nature, the salvarsan evidently having merely started or exaggerated it. In the fatal case the symptoms did not resemble those of arsenic poisoning; there were no gastro-intestinal disturbances, but the syndrome was identical in every respect with that in the "salvarsan fatalities" on record. The necropsy findings also showed manifold analogies with those of arsenic poisoning, likewise the interval of two or three days between the salvarsan and the onset of the convulsions.

Deutsche medizinische Wochenschrift, Berlin

December 12, XXXVIII, No. 50, pp. 2345-2392

74 The Foundations of Psychotherapy. O. Veraguth.
75 *Tubercle Bacilli in the Blood of the Non-Tuberculous. (Ueber "sekundäre" Tuberkulose.) Bacmeister and Rueben.
76 Antitoxin in the Blood of Diphtheria Patients After Serotherapy. (Antitoxinuntersuchungen bei Diphtheriekranken die mit Heilserum behandelt wurden.) W. Beyer.
77 *Diphtheria Bacilli in the Urine. (Diphtheriebazillen im Harn.) R. Koch.
78 Antianaphylaxis in Research on Toxicity of Urine in Acute Infectious Diseases. (Harngiftigkeit und Anaphylaxie.) A. Uffenheimer.
79 Treatment of Fracture of Upper Jaw. (Oberkieferfrakturen.) Hagedorn.
80 Blastomycetes in Conjunctivitis Resembling Trachoma. A. Stiel.
81 Saprophytic Bacterium in Hog Pathogenic for Man. (Menschenpathogenität eines saprophytisch im Schweinedarm lebenden paratyphusähnlichen Bakteriums.) H. Bontemps.

75. **Tubercle Bacilli in the Blood.**—Bacmeister and Rueben state that they found bodies in the blood which were apparently tubercle bacilli in patients with minimal tuberculosis and, in fact, in every person examined, healthy or with non-tuberculous affections. They also found them constantly in the blood of rabbits which they knew to be entirely free from tuberculosis. Analyzing these surprising findings has convinced them that the only criterion to determine the identity of the bodies thus found is inoculation of animals. This always gave negative results when the supposed tubercle bacilli had been derived from persons or animals free from tuberculosis.

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77. **Diphtheria Bacilli in the Urine.**—Koch made 111 examinations of the urine of twenty-six diphtheria patients. In four instances the bacilli from the urine of two of the patients proved pathogenic for laboratory animals. Diphtheroid bacteria were found in ten examinations of the urine from five other patients, and also four times in nineteen tests of the urine from scarlet fever patients, but no diphtheria bacilli pathogenic for animals were found in the cadavers except of those who had succumbed to cardiovascular complications early in the disease.

Medizinische Klinik, Berlin

December 8, VIII, No. 49, pp. 1975-2016

82 *Medical Certificates in Regard to Insanity. (Aerztliche Bescheinigungen über geistige Krankheit oder Gesundheit.) A. Mercklin.
83 Disease of the Central Nervous System of Syphilitic Origin. (Syphilogene Erkrankungen des Centralnervensystems.) E. Schultze. Commenced in No. 48.
84. Chemical Treatment of Cancer. (Zur Chemotherapie des Krebses.) H. Ribbert.
85 Technic for Removing Stone in the Kidney. (Die Pyelotomie als Methode der Wahl bei der Steinniere.) Baum.
86 Research on the Coagulation of Blood. (Blutgerinnung.) E. Unger.
87 General Principles for Treatment of Heart Disease by Physical Measures. M. Kahane. Commenced in No. 47.

December 15, No. 50, pp. 2018-2056

88 *Stricture of the Esophagus. (Die Speiseröhrenverengerung.) C. A. Ewald.
89 *The Respiratory Disturbances in Uremia. (Die Atmungsstörungen der Urämischen.) J. Pal.
90 *Migrating Myelitis. R. Bing.
91 Deposits of Iodipin Interfering with Roentgenoscopy Findings. (Ueber die Möglichkeit der Täuschung durch Jodipinreste bei der Röntgenuntersuchung der Lungen.) H. Arnsperger.
92 Improved Technic for the Radical Operation for Inguinal Hernia. H. H. Dreesmann.

82. **Certificates in Regard to Insanity.**—Merecklin comments on the appearance of a new periodical, *Irrenrechtsreform*, the organ of an association formed for protection against being adjudged insane and having a guardian appointed. This journal is another manifestation, he remarks, of the profound lay distrust of psychiatrists in the exercise of their profession. And this in spite of the brilliant progress and development of humane care of the insane and the most zealous research in the field of psychiatry. He gives a number of wise suggestions for the guidance of physicians called on to testify to the mental condition of a patient and to the necessity for institutional care. He warns that it is not necessary to attempt to give the correct diagnosis in the certificate. More important is it to give the summary of the observations on which the conclusions as to the existing mental disease are based. In particular is it desirable to specify the given circumstances which render institutional treatment indispensable. It is often wise to add that improvement, remission of the symptoms, is possible with proper care or is not to be anticipated. It is well to be wary with the statement that the individual is a public danger, but it must not be forgotten that in the course of two recent years 111 children were killed by insane persons committing suicide. The certificate should always distinguish between possible and actually proved sources of danger to the community, and the fact should always be stated on which this assumption is based. There is too often a tendency to obtain information from the persons around while neglecting to examine the supposed insane himself. Some physicians fear to bring on a maniacal attack by a medical examination, but Merecklin thinks this fear is exaggerated. A comprehensive examination is seldom possible but brief personal intercourse will prove very illuminating. A certificate testifying to the restoration of health after mental disease is a very responsible task. The physician should never be content with a single examination but should always demand time and the examination should not be done in the hurry of the office hours. It is important to examine the individual not only in the physician's house but in his own home where much that is useful may be learned. One advantage of this double examination is the liability to rapid change in the psychic behavior and the ability of some insane to repress their morbid phenomena for a time. The greatest stress should be laid on the previous history; in testing the intelligence it should not be forgotten that the mind may be apparently intact when the emotions and impulses are extremely morbid. If the individual has been in the care of an institution, the physician should ask to see the records before delivering a certificate. A flagrant instance is cited where a physician with paranoic dementia had escaped from an institution and was able to obtain a certificate from two physicians, stating that he had entirely recovered and that there was nothing to hinder his resuming practice, when in fact his ideas as to treatment were erratic beyond belief. Merecklin remarks in conclusion that the law makes no provision for the recall of the right to practice medicine when a physician has become insane.

88. **Stricture of the Esophagus.**—Ewald reviews his experiences in 308 cases of cancerous stricture of the esophagus and seventy-four non-malignant cases. The history of the case and examination with simple instruments soon clear up the diagnosis, but little can be done in treatment. A gastrostomy affords but temporary relief although this spares the cancer the irritation from passage of food and thus has a marked palliative influence in addition to its permitting feeding. But the general toxic action of the malignant disease is not checked and it is seldom possible to keep the patient alive for more than two or three years although Ewald had one patient who had a cancer in the stomach successfully removed, then the right arm was exarticulated for a metastatic tumor in the humerus, the patient finally succumbing to metastasis in the right pleura. His experience with a retention cannula suspended in the stricture has not been favorable; gangrene from pressure is liable and the growth of the tumor pushes the tube up out of the stricture. The same objections apply to Senator's and Schreiber's dilators. Better results are obtained with the cautious use of ordinary sounds. Local application of radium has not given good results in his hands. When the weight begins to drop systematically he advises an operation rather than to let the patient drift away with nothing done except giving sedatives and nutrient enemas; an operation is amply justified by the exceptional and not to be foreseen cases in which the operation gave the patients a longer lease of life.

89. **Respiratory Disturbances in Uremia.**—Pal discusses the respiratory disturbances directly dependent on the uremia, the characteristic loud and deep breathing and the Cheyne-Stokes phenomenon—both subacute—and the disturbances from the action of the toxemia on the cardiovascular functioning—the acute form of respiratory disturbance. The latter includes the paroxysmal cardial and the paroxysmal cerebral dyspnea, both products of the acute, excessively high blood-pressure. The cardial form appears when the left ventricle has become relatively insufficient, while the cerebral form appears when, with the excessively high pressure, the heart is still able to do its work. The subacute forms are the least amenable to treatment. They can be influenced only by measures against the underlying trouble. The acute forms are more alarming, at the time, but as they are the results of mechanical causes they can be influenced by lumbar puncture, venesection and other means to reduce the arterial pressure. He has never encountered asthma in his patients with uremia, and he thinks that if they occur together it is merely a coincidence and that there is no causal relation between them. A nephritic patient likewise may have dyspnea and pulmonary edema from some primary heart disease but in this case there is not the characteristic acute high pressure in the arteries characteristic of acute uremia and which can be relieved by venesection or drugs to reduce the blood-pressure. Pal cites a few instances to illustrate the two types and the prompt efficacy of venesection or lumbar puncture.

90. **Migrating Myelitis.**—Bing reports a case in which the symptoms of the myelitis changed, showing that the lesion had migrated. He has not been able to find in the literature any similar case. The patient was a robust mechanical engineer of 30, who ran a rusty nail into one toe and a month later had to work in icy water all one night. The motor paralysis, motor irritation, disturbances in sensibility and in the reflexes were at first those typical of myelitis in the lower spinal cord, but then these subsided and others developed indicating transference of the lesion to a region higher up. Among

the most disturbing symptoms in the later phase were the unbearable itching from axillae to ears, including the arms, and also the headache. The bladder and rectum symptoms had all disappeared by this time. Invasion of the medulla oblongata was momentarily expected, but under intramuscular injections daily of 10 c.c. camphorated oil, with strychnin and aspirin, a marked turn for the better was noted and with continued galvanization, strychnin injections and carbonated baths a clinical cure followed, even the cremaster and abdominal reflexes returning. In less than three months from the first symptoms the patient felt entirely well and had returned to work. The symptoms indicated that the myelitis in the lumbosacral region with which the trouble began, was more or less transverse and diffuse, but as the lesions here healed and the upper segments of the spinal cord became affected the anterior and posterior horns were the only parts involved.

Monatsschrift für Geburtshülfe und Gynäkologie, Berlin

December, XXXVI, No. 6, pp. 637-758

93 *Perforation of Uterus During Treatment of Abortion. (Ueber Uterusperforation bei Ausräumung von Aborten und Vorschläge zu deren Verhütung.) W. Rühl.
94 Pregnancy in a Diverticulum of the Uterus. Barchet.
95 Angioma of the Placenta. (Das Placentarangiom eine echte Geschwulst.) M. Elten.
96 *Shorter Lying-in Period Recommended. (Zur Frage über das frühe Aufstehen nach der Geburt.) W. Stroganoff.
97 Theory in Regard to the Development of Sex. (Beitrag zur Entwicklungsmechanik des Geschlechts.) Weill.
98 Effects of Secretion of Corpus Luteum and Ovary. (Glandula lutea und Ovarium in ihrem Verhalten zu den normalen physiologischen und pathologischen Vorgängen im weiblichen Organismus.) N. A. Below.
99 Origin of Dermoid Cysts. (Zur Entstehung von Dermoidkugeln.) W. Plenz.
100 Intra-Abdominal Myorrhaphy of Levator Ani for Anteversion of the Uterus. (Intra-abdominale Myorrhaphie der Musc. levator ani bei Uterusvorfällen.) A. Jianu.

93. Perforation of the Uterus During Treatment of Abortion.—Rühl discusses Puppe's recent work on the medicolegal aspect of instrumental perforation of the uterus by physicians. Puppe cited 264 cases reported between 1907 and 1910, and described in detail two fatal cases in which the attending physician did not know that he had perforated the uterus. Rühl thinks that the emptying of the uterus by surgical means should be discouraged among general practitioners. It should never be done except by surgeons in hospitals. In many cases it would have been possible to manage without surgical treatment by tamponing or the use of the finger instead of the curet. He declares that the physician should be held legally responsible if he has not the necessary skill and experience to perform such operations in the most skilled scientific way; also if he operates without assistance and without the use of the most careful antiseptic and aseptic precautions.

96. Shorter Lying-in Period Recommended.—Stroganoff bases his conclusions on a study of 8,000 cases in his hospital at St. Petersburg. He has found that his patients do better when they get up on the third day or sometimes, in the case of primiparae, on the fifth. The upright position favors the discharge of the lochia, stimulates the action of bowels and bladder and prevents fecal absorption. Gain in weight begins quicker on account of better appetite, and the involution of the uterus is hastened and backward displacement is prevented by the erect position. It may be added that large numbers of his patients were Russian peasant women accustomed to hard labor.

Münchener medizinische Wochenschrift

December 10, LIX, No. 50, pp. 2713-2768

101 The Crescendo Murmur of Mitral Stenosis. D. Gerhardt.
102 Mechanism of Action of Opiates on Defecation. (Wirkung von Morphium, Opium und Pantopon auf die Bewegungen des Verdauungstraktus beim Menschen und beim Tier.) E. Stierlin and N. Schapiro.
103 Peristalsis in Large Intestine. (Zur Kenntnis der normalen Dickdarmbewegungen.) F. Meyer-Betz.
104 Atrophy of Optic Nerve with Steeple and Pointed Skulls. (Genese der Sehnervenatrophie bei Oxyzephalen.) K. Eskuchen.
105 *Detection of Simulation in Alleged Sciatica. (Zur Beurteilung der Ischias bei Unfallverletzten.) M. v. Brunn.
106 *Operative Treatment of Elephantiasis. (Die chirurgische Behandlung der elefantiastischen Oedeme durch eine neue Methode der Lymphableitung.) E. Kondoleon.
107 *Experimental Hemoglobinuria from Ingestion of Distilled Water. (Zur Schädlichkeit des destillierten Wassers.) R. Oehler.
108 Precipitation of Fibrinogen in Ascitic Fluid Differentiates It from Cyst Content. (Einfaches Hilfsmittel zur Differentialdiagnose zwischen Aszites und schlaffen Ovarialzysten.) A. Dienst.
109 *Typical Street-Car Accident. (Strassenbahnverletzung.) Frank.
110 Disappointing Experiences with Mesbé in Treatment of Tuberculosis. Zink.
111 Chemical Action of Karbenzym. M. Winckel.
112 Gynecology in Psychiatry. P. Mathes.
113 Advantages and Technic of Ethyl-Chlorid General Anesthesia. (Zur Technik der Chloräthylnarkose.) E. Borchers.
114 Color Tests of Kidney Functioning. (Ueber einige kolorimetrische Bestimmungsmethoden; die nierendiagnostische Methode von Rowntree und Geraghty, die Bestimmung des Rhodans im Speichel und die des Jods im Harn.) W. Autenrieth and A. Funk. Commenced in No. 49.
115 Cumulative Roentgen-Ray Burn. (Schädigungen der Haut durch Röntgenlicht nach Tiefenbestrahlung—Aluminum. Kumulierende Wirkung.) H. Iselin. Commenced in No. 49.

105. Detection of Simulation in Alleged Traumatic Sciatica.—The comprehensive industrial insurance legislation in Germany has made the question of simulation a vital one there. In case of true sciatica, the pain is always increased when the patient, lying on his back with flexed hip joint, has the knee drawn out straight. Turning the patient on his face, the hip straight, Brunn flexes the knee—this relaxes the sciatic nerve and reduces the pain. In case of simulation the patient, feeling the knee moved, thinks that this movement must necessarily induce pain and consequently complains of pain, which stamps the case at once as suspicious of malingering. The suspicion is confirmed if the patient replies affirmatively to the question whether he feels pain on pressure of certain points along the nerve, the pressure being applied at points remote from the true course of the nerve.

106. Operative Treatment of Elephantiasis.—Kondoleon encountered eight cases of disfiguring elephantiasis at Athens in the course of a recent year, and reports his successful operative treatment in six. The measures applied varied according as the trouble was merely stasis of lymph or sclerosis of the tissues or both combined. In the very mild cases, it suffices to provide a means of communication between the superficial lymphatics and the muscles by working strips of fascia into the muscle tissue. This proved all that was needed in one case. In the others the years of elephantiasis had changed the fascia into a hard inelastic shield between the subcutaneous tissue and the muscles. Nothing will help in such a condition except incision of patches of fascia. In one case of thirty-five years' standing he cut out fully half the fascia in the leg, restoring the man to active life free from all disturbances except a feeling of heaviness in the legs and some hardness still left in the tissues. There were no functional disturbances in any instance after excision of the fascia, and the multiple nodules disappeared in two days afterward in one of the cases and the skin became comparatively soft and flexible in a few days in all the patients.

107. Harmfulness of Distilled Water.—The experimental research reported emphasizes the necessity for examining the blood and kidney functioning in studying the injurious action of chemically pure water. It induced hemoglobinuria in mice drinking it.

109. Typical Street Car Accident.—The accident to which Frank refers is a contusion of the genitals from sitting down hastily or being thrown back on the low iron railing that separates the seats in certain street cars. Both the women in the two cases reported recovered without serious injury although the sudden profuse hemorrhage from the laceration in the vulva was very alarming in one of the cases. The laceration was superficial and only 1 cm. long and the bleeding stopped at once on compression but started again each time as soon as the compression was removed. This profuse hemorrhage from wounds in the vicinity of the clitoris is an old experience, but a couple of sutures arrested the hemorrhage at once.

St. Petersburger medizinische Zeitschrift

December 14, XXXVII, No. 23, pp. 339-352

116 Treatment of Gunshot Wounds of the Skull. (Indikationen zur primären operativen Behandlung der Schädelschüsse im Frieden und Kriege.) O. Holbeck.
117 Prevailing Theories in Regard to Vitalism. (Welche Naturanschauung ist die der heutigen Medizin gemässeste?) K. Dehio.

Therapie der Gegenwart, Berlin

December, LIII, No. 12, pp. 529-552

118 *Bone and Joint Tuberculosis. (Behandlung der Knochen- und Gelenktuberkulose.) G. Perthes. Commenced in No. 11.

119 Bromids in Epilepsy. (Die Brombehandlung der Epilepsie.) R. Ammann.

120 *Late Forms of Inherited Syphilis. (Ueber die Spätformen der Erbsyphilis.) F. Bering.

●121 The Physician in Epidemics and Wholesale Poisonings, etc. (Das Verhalten des Arztes bei Epidemien und Massenerkrankungen.) K. Hoffmann.

118. **Treatment of Bone and Joint Tuberculosis.**—Perthes states that he has never obtained as good results with Bier's method of stasis hyperemia as Bier has reported, but he thinks that Bier's recent reports of the fine results obtained by combining this method with large amounts of potassium iodid internally open new prospects in the conservative treatment of surgical tuberculosis. This permits much more intensive hyperemia treatment, as long as up to twelve hours a day, with potassium iodid in daily doses totaling from 1 to 8 gm. The main point in hyperemia treatment is to apply the constriction in such a way that the limb keeps warm, the pulse palpable. Perthes discusses the indications for operative treatment, emphasizing that the bones and joints of children display a much greater tendency to heal than in adults; at the same time the results of resection of a joint are particularly unfavorable in children. The special joint involved also points to the special treatment; for the knee resection may be considered more readily than for the hand or hip in which a good outcome is generally possible with conservative measures. Roentgenoscopy is a valuable aid in determining whether to operate or not, as also the general condition, the results of previous conservative measures and the social standing of the patient, whether he can submit to a tedious course of conservative measures.

120. **Tardy Development of Inherited Syphilis.**—Bering regards congenital tardy syphilis as the saddest form of the disease, and here discusses its usual manifestations. The infection is acquired in the uterus but does not manifest itself for years. The Wassermann reaction was positive in 75 per cent. of his cases of this kind. The knee was usually the seat of the first symptoms, both knees swelling at the same time. Roentgenoscopy shows some roughness in the ends of the bones and the puncture fluid always gave a positive reaction in his cases. The course is more acute than that of a tuberculous process, and there was always enlargement of lymph-nodes. Parenchymatous keratitis is another frequent primary manifestation, and is often the only acute process. It usually runs a stormy course, sometimes bilateral, befalling first one and then the other eye. Gumma in the muscle was also occasionally observed and syphilids in the skin. The first symptoms were observed about the eighth year in most of his cases, but in some as early as the first year and in one not until the twenty-sixth. He never was able to transform the Wassermann reaction to negative, even although years may have elapsed without manifestations of the disease.

Wiener klinische Wochenschrift, Vienna

December 12, XXV, No. 50, pp. 1965-1996

122 *Care of the Mentally Unbalanced in War. (Psychiatrische Fürsorge auf dem Kriegsschauplatze.) B. Revesz.

123 Determination of Uric Acid in the Blood. F. Oberpayer, H. Popper and E. Zak.

124 *Improved Technic for Ligation of Blood-Vessels. (Vorläufige Mitteilungen über eine neue Möglichkeit Blutgefässe zu unterbinden.) H. Bardach.

125 Successful Resection of Gastric Sarcoma. (Ein primäres endogastrisches Lymphosarkom.) L. Ruppert.

December 19, No. 51, pp. 1997-2032

126 *Aseptic Surgery. (Zur Keimprophylaxis in der Chirurgie.) Jaklin.

127 Scleroma in Russia. (Zur Skleromfrage in Russland.) A. Jürgens.

128 The Scaphoid Scapula as Sign of Physical Inferiority. (Das skaphoide Schulterblatt und seine klinische Bedeutung für die Prognose der Lebensdauer.) V. Kollert.

129 Technic for Radio-Active Therapy. (Eine neue Methode zur Einverleibung grösserer Emanationsmengen.) E. Kühnelt.

130 *Treatment of Abscess in the Outer Ear. (Zur Therapie der Otitis externa furunculosa.) A. Zografides.

131 Wilm's Technic for Prostatectomy. (Zu den Ausführungen von Zuckerkandl über die Prostatektomie nach Wilms.) M. Wilms.

122. **Psychiatry in War.**—Revesz remarks that the history of psychiatry on the battle field is of recent date, the Russo-Japanese war first bringing it into prominence. The Russians have had military psychiatric institutions since 1869, while the Japanese summoned specialists to care for the insane combatants for the first time during this campaign. It is now well recognized how important is a branch of the medical service for the mentally unbalanced on the firing line. In the Russian force there was an average of one insane to each 250 soldiers; of the 275 Russian officers who developed insanity over a third were of the delirium-tremens type and a third of the insane soldiers were inclined to epilepsy or hysteria. The alcoholic psychoses developed much less frequently when the forces were unable to obtain liquor, and Revesz thinks that absolute abstention from liquor is a strict indication for an army in the field. He suggests various technical points, urging the necessity for trained psychiatrists and attendants skilled in the care of the insane. He adds that the care of the wounded and sick being sent back to reserve hospitals and institutions might wisely be entrusted to psychiatrists, leaving the surgeons temporarily at the front.

124. **Improved Technic for Ligation of Vessels.**—Bardach expatiates on the advantages of using a very fine rubber tube for tying blood-vessels. His tube is of the softest, finest rubber, the diameter not over 1.7 mm. It spreads out to form a ribbon 2.5 mm. wide; once crossing the ends ties it firmly enough on account of the elasticity of the rubber. The flattened lumen allows a certain play in the compression, and his experiments with vessels thus ligated in laboratory animals showed that the compression by the tube did not cause any damage to the vessels, even when left on for twenty-four hours. Another advantage is that it is so easy to remove the ligature; one end is cut close to the knot when at once the whole comes undone. The walls of the vessel stick together at first, so that the flow of blood is only gradually restored—a still further advantage.

126. **Prophylaxis of Wound Infection in Surgery.**—Jaklin insists that the only way to ensure absolute asepsis in surgery is to avoid having anything to do with septic cases. Ordinary saprophytic and other germs are not virulent enough to do harm unless they come from a septic process or have passed through a septic organism. He has acted on this conviction for fifteen years, absolutely refusing to have anything to do with septic processes, and in his 4,175 aseptic operations he has had infection in only 0.31 per cent. of all the cases, and in these it was merely a stitch-hole abscess. Before that he had infection in 5.1 per cent. of his 1,276 operations. By declining all operations on septic material he is able to dispense with gloves, masks, etc., and his hands do not require such unmerciful sterilization as under other conditions, and operations can be done in a clean house as successfully as in a hospital. Total abstinence is his rule, and the fine results of its application through fifteen years have confirmed him more and more in the wisdom of the rule.

130. **Treatment of Suppuration in the Outer Ear.**—Zografides remarks that few affections are so painful as an abscess in the outer ear, but he has found it possible to abort and cure the trouble by the simple means of making three to five lengthwise incisions in the passage at the point where the pain is most severe. He does not wait for the abscess to ripen, but makes the incisions at once when the patient complains of pain. The meatus and outer ear are thoroughly disinfected to begin with; then the incisions are made where the probe shows that there is most painfulness. Then he covers the incisions at once with strips of gauze dipped in a 10 per cent. solution of phenol, with or without preceding application of cocain. The phenol has an anesthetic as well as a sterilizing action, and it is absorbed promptly through the raw surface of the incisions. The pain subsides in the course of an hour or two and has entirely disappeared by the fifth hour. The method is not new, only he does not know that any one else makes the incisions at such an early stage or applies the phenol so promptly.

Zentralblatt für Chirurgie, Leipsic

December 21, XXXIX, No. 51, pp. 1729-1760

132 Technic for Local Anesthesia. (Ueber Pantopon-Skopolamin-injektionen bei Operationen mit lokaler Anästhesie.) L. A. Diwawin.
133 One-Hand Syringe. (Eine Saugspritze zum Betriebe mit einer Hand.) G. Nyström.

Zentralblatt für Gynäkologie, Leipsic

December 21, XXXVI, No. 51, pp. 1721-1752

134 Etiology of Placenta Praevia. R. Lumpe.
135 *Sterility the Rule After Classic Cesarean Section. (Möglichkeit einer erneuten Schwangerschaft nach dem klassischen Kaiserschnitt.) P. C. T. v. d. Hoeven.
136 Necrosis of Fat Tissue After Suturing. (Ueber Nekrose des Fettgewebes durch Naht.) F. Eberhart.
137 Very Little Change in External Aspect and Size of Fetus in Last Month Before Term. (Frühgeburt oder ausgetragenes Kind?) W. Nacke.

135. **Sterility After Cesarean Section.**—Hoeven states that an average of 5 per cent. of the children do not survive the classic operation for cesarean section, the proportion ranging from Richter's 0.9 to Frigyesi's 16 per cent. mortality in fourteen maternities cited. Adhesions between the uterus and adjoining tissues develop in from 67 to 84 per cent. of the cases and naturally interfere with future pregnancies. He found that of seventeen married women in the child-bearing age who had had cesarean section done in his service between 1896 and 1910, only eight have borne viable children since, and five of the seventeen women required cesarean section anew and only one of these bore a child after the second operation. This comparative sterility, over half of the women having no further children after the first cesarean section, is very discouraging, he remarks. It warns that the classic technic should be discarded for one that promises a better ultimate outcome.

Gazzetta degli Ospedali e delle Cliniche, Milan

December 17, XXXIII, No. 151, pp. 1585-1592

138 *The Prognosis in Typhoid Relapses. (La prognosi delle recidive da ileotifo.) G. Malan.

December 19, No. 152, pp. 1593-1600

139 Paralysis of the Bladder in Poliomyelitis. (Caso di paralisi vescicale da poliomielite.) G. Campora.

138. **Prognosis of Typhoid Relapse.**—Malan reviews the epidemics of typhoid at Turin in the last thirteen years, and states that he has been impressed by the large number of relapses, especially when the spleen persisted large, and by the mild character of the disease in general. He tabulates the details and calls attention to the fact that in the years showing the largest proportion of relapses, the mortality was always the lowest. The mortality in 552 cases without relapse was 11 or 12 per cent., while it was only 3 per cent. in ninety-seven cases with relapse. His experience has thus been that relapses run a comparatively harmless course, probably owing to the active immunization already induced and to the fact that in the malignant cases the patients die before reaching the relapse stage. At the same time, he warns, the intestines have been probably damaged to such an extent that they are peculiarly fragile and vulnerable, and hence the vigilance and care in regard to the diet must be redoubled in case of a relapse.

Policlinico, Rome

December 15, XIX, No. 51, pp. 1857-1892

140 Effusion of Blood in Spinal Cord from Indirect Trauma. (Caso di ematomielia centrale da trauma indiretto.) A. Allegri.

Riforma Medica, Naples

December 14, XXVIII, No. 50, pp. 1373-1400

141 *Subcutaneous Injection of Camphorated Oil. (Sull'olio canforato per via ipodermica.) L. Fornaca and R. Lanza.
142 Sarcoma of Male Breast. (Caso di sarcoma della mammella maschile.) F. Putzu.
143 Bilharziasis. (Contributo allo studio della bilharziosi venosa.) I. Bandi.

141. **Camphorated Oil in Subcutaneous Injection.**—Fornaca and Lanza conclude from their experimental research and clinical observation that camphor in therapeutic doses has no bactericidal or antitoxic action, its sole efficiency being as a tonic and stimulant for the heart. It has a prompt pronounced action on the blood-pressure and the viscosity of the blood, when given in doses not over 0.2 or 0.4 gm. in substance in 1 or 2 c.c. of olive oil. The action grows less as the dose is increased beyond this. The above small doses, repeated at need, they say, have the sanction of theory, tradition and practice.

Hospitalstidende, Copenhagen

December 18, LV, No. 51, pp. 1525-1548

144 Multiple Mesenteric Chyle Cysts in Girl of 7; Volvulus and Perforation. Recovery After Resection of Ileus. K. Poulsen.
145 *Gonorrheal Hyperkeratosis. (Om de saakaldte "gonorrhoiske Hyperkeratoser" med Beretning om et nyt Tilfælde.) O. Haslund.

145. **Gonorrheal Horny Eruption.**—Haslund cites various authors who have reported purpura, exanthems, herpes, urticaria and erythema as manifestations of gonorrheal infection. The first report of a horny crust eruption or hyperkeratosis was published in 1898, and Arning in 1911 had compiled twenty-three cases of this kind. Haslund adds another to the list, although in his case the correct diagnosis was not made until after the patient had recovered. He was a man of 37 with recurring gonorrheal urethritis and reddish pinhead spots scattered over the hands. Then some vesicles formed; some suppurated and others dried up. Then small papules developed on the legs and body and on the penis patches resembling psoriasis. The cutaneous affection and urethritis subsided for a year, but then flared up again for two months, and staphylococci were isolated from the confluent vesicles. Again it subsided, but returned a few months later with urethritis. The Wassermann reaction was constantly negative. The patient suffered most of the time with pains in some of the joints, and this subacute arthritis, not entailing ankylosis, is part of the clinical picture in these cases, along with the endogenous conjunctivitis and the keratosis. The latter generally develops as a balanitis hyperkeratotica; more rarely it involves the hands and feet, and only exceptionally other parts of the body. The keratosis passes first through a vesicular stage, and this is followed by a hard crust formation. The affection may also blend into other forms of a gonorrheal exanthem.

Norsk Magazin for Lægevidenskaben, Christiania

December, LXXIII, No. 12, pp. 1693-1820

146 Hernia of the Diaphragm. (Hernia og eventratio diaphragmatica.) K. Motzfeldt and H. Wille.
147 Operative Treatment of Talipes. (Om operativ behandling av medfødt klumpfot.) V. Bülow-Hansen.
148 *Acute Dilatation of the Stomach. (Et tilfælde av akut ectasia ventriculi.) B. Jensen.
149 *Camphor Poisoning. (Kamferforgiftning.) N. B. Koppang.
150 Sodium Nitrite Poisoning. (Litt om forgiftninger med natrium-nitrit, $NaNO_2$.) G. R. Krogh.
151 Traumatic Appendicitis. (Epityphlitis traumatica.) G. Benestad.

148. **Acute Dilatation of the Stomach.**—Jensen's patient had previously borne ten children and had just been delivered of twins, requiring various maneuvers to arrest the serious hemorrhage. The severe anemia was combated by stimulants and raising the foot of the bed. The next morning there was sudden collapse and signs of acute dilatation of the stomach. With the stomach tube a little fluid was evacuated and a very large amount of gas. The booming escape of the enormous amount of gas relieved the patient at once and the stomach subsided to its normal size. He ascribes the trouble to the extreme anemia and toxic action of the small amount of chloroform used; there was no mechanical obstruction.

149. **Camphor Poisoning.**—Koppang reports the case of a clerk, 23 years old, who took one afternoon 1.2 gm. of pure camphor to cure insomnia. An hour later nausea, vertigo, congestion in the face and a general condition of "tipsiness" developed, the patient becoming finally unconscious, but there were no signs of convulsions. The breath smelt strong of camphor. The pulse was 100, temperature 36.5 C., knee-jerk lively and pupils dilated, but reacting well. The urine seemed normal. Lavage of the stomach brought away lumps of pure camphor. By the next day he was entirely restored. Koppang discusses other cases of camphor poisoning on record. The smallest dose causing symptoms of poisoning was 0.7 gm. The lethal dose for adults is not known; camphor has been taken with suicidal intent in doses up to 15 gm. with survival. Children have succumbed to a dose of from 0.75 to 1 gm. camphor. The features of the chemical action of camphor in the body are also discussed.